

Bibliographies, as submitted by the departments of the Carnegie Institution for Science July 1, 2013, to June 31, 2014

Embryology

Brawand D, Wagner CE, Li YI, Malinsky M, Keller I, Fan S, Simakov O, Ng AY, Lim ZW, Bezault E, Turner-Maier J, Johnson J, Alcazar R, Noh HJ, Russell P, Aken B, Alföldi J, Amemiya C, Azzouzi N, Baroiller JF, Barloy-Hubler F, Berlin A, Bloomquist R, Carleton KL, Conte MA, D'Cotta H, Eshel O, Gaffney L, Galibert F, Gante HF, Gnerre S, Greuter L, Guyon R, Haddad NS, Haerty W, Harris RM, Hofmann HA, Hourlier T, Hulata G, Jaffe DB, Lara M, Lee AP, MacCallum I, Mwaiko S, Nikaido M, Nishihara H, Ozouf-Costaz C, Penman DJ, Przybylski D, Rakotomanga M, Renn SC, Ribeiro FJ, Ron M, Salzburger W, Sanchez-Pulido L, Santos ME, Searle S, Sharpe T, Swofford R, Tan FJ, Williams L, Young S, Yin S, Okada N, Kocher TD, Miska EA, Lander ES, Venkatesh B, Fernald RD, Meyer A, Ponting CP, Strelman JT, Lindblad-Toh K, Seehausen O, Di Palma F. The genomic substrate for adaptive radiation in African cichlid fish. *Nature*. 2014 Sep 18;513(7518):375-81. doi: 10.1038/nature13726. Epub 2014 Sep 3. PubMed PMID: 25186727.

Brubaker SW, Gauthier AE, Mills EW, Ingolia NT, Kagan JC. A bicistronic MAVS transcript highlights a class of truncated variants in antiviral immunity. *Cell*. 2014 Feb 13;156(4):800-11. doi: 10.1016/j.cell.2014.01.021. PubMed PMID: 24529381; PubMed Central PMCID: PMC3959641.

Castaneda J, Genzor P, van der Heijden GW, Sarkeshik A, Yates JR 3rd, Ingolia NT, Bortvin A. Reduced pachytene piRNAs and translation underlie spermiogenic arrest in Maelstrom mutant mice. *EMBO J*. 2014 Sep 17;33(18):1999-2019. doi: 10.15252/embj.201386855. Epub 2014 Jul 25. PubMed PMID: 25063675.

Carroll KJ, Esain V, Garnaas MK, Cortes M, Dovey MC, Nissim S, Frechette GM, Liu SY, Kwan W, Cutting CC, Harris JM, Gorelick DA, Halpern ME, Lawson ND, Goessling W, North TE. Estrogen defines the dorsal-ventral limit of VEGF regulation to specify the location of the hemogenic endothelial niche. *Dev Cell*. 2014 May 27;29(4):437-53. doi: 10.1016/j.devcel.2014.04.012. PubMed PMID: 24871948.

Choi MC, Ryu S, Hao R, Wang B, Kapur M, Fan CM, Yao TP. HDAC4 promotes Pax7-dependent satellite cell activation and muscle regeneration. *EMBO Rep*. 2014 Sep 9. pii: e201439195. [Epub ahead of print] PubMed PMID: 25205686.

Cui M, Augert A, Rongione M, Conkrite K, Parazzoli S, Nikitin AY, Ingolia N, MacPherson D. PTEN is a potent suppressor of small cell lung cancer. *Mol Cancer Res*. 2014 May;12(5):654-9. doi: 10.1158/1541-7786.MCR-13-0554. Epub 2014 Jan 30. PubMed PMID: 24482365; PubMed Central PMCID: PMC4020961.

deCarvalho TN, Subedi A, Rock J, Harfe BD, Thisse C, Thisse B, Halpern ME, Hong E. Neurotransmitter map of the asymmetric dorsal habenular nuclei of zebrafish. *Genesis*.

2014 Jun;52(6):636-55. doi: 10.1002/dvg.22785. Epub 2014 May 8. PubMed PMID: 24753112; PubMed Central PMCID: PMC4069259.

Deryusheva, S and Gall, JG. Novel small Cajal-body-specific RNAs identified in *Drosophila*: probing guide RNA function. [RNA](#). 2013 Dec;19(12):1802-14. doi: 10.1261/rna.042028.113. Epub 2013 Oct 22.

Endow SA, Nizami ZF, Gerbi SA. A remarkable career in science-Joseph G. Gall. *Chromosome Res*. 2013 Jul;21(4):339-43. doi: 10.1007/s10577-013-9369-5. Epub 2013 Jul 5. PubMed PMID: 23828690.

Gall, JG. Transcription in the *Xenopus* oocyte nucleus. In: *Xenopus Development 2014*. (ed. Kloc, M. and Kubiak, J.) pp. 3-15. Wiley, New York

Gaysinskaya V, Soh IY, van der Heijden GW, Bortvin A. Optimized flow cytometry isolation of murine spermatocytes. *Cytometry A*. 2014 Jun;85(6):556-65. doi: 10.1002/cyto.a.22463. Epub 2014 Mar 24. PubMed PMID: 24664803.

Gorelick DA, Iwanowicz LR, Hung AL, Blazer VS, Halpern ME. Transgenic zebrafish reveal tissue-specific differences in estrogen signaling in response to environmental water samples. *Environ Health Perspect*. 2014 Apr;122(4):356-62. doi: 10.1289/ehp.1307329. Epub 2014 Jan 9. PubMed PMID: 24425189; PubMed Central PMCID: PMC3984228.

Guo Y, Kim Y, Shimi T, Goldman RD, Zheng Y. Concentration-dependent lamin assembly and its roles in the localization of other nuclear proteins. *Mol Biol Cell*. 2014 Apr;25(8):1287-97. doi: 10.1091/mbc.E13-11-0644. Epub 2014 Feb 12. PubMed PMID: 24523288; PubMed Central PMCID: PMC3982994.

Hong E, Santhakumar K, Akitake CA, Ahn SJ, Thisse C, Thisse B, Wyart C, Mangin JM, Halpern ME. Cholinergic left-right asymmetry in the habenulo-interpeduncular pathway. *Proc Natl Acad Sci U S A*. 2013 Dec 24;110(52):21171-6. doi: 10.1073/pnas.1319566110. Epub 2013 Dec 10. PubMed PMID: 24327734; PubMed Central PMCID: PMC3876215.

Horn AV, Klawitter S, Held U, Berger A, Vasudevan AA, Bock A, Hofmann H, Hanschmann KM, Trösemeier JH, Flory E, Jabulowsky RA, Han JS, Löwer J, Löwer R, Muenk C, Schumann GG. Human LINE-1 restriction by APOBEC3C is deaminase independent and mediated by an ORF1p interaction that affects LINE reverse transcriptase activity. *Nucleic Acids Res*. 2014 Jan;42(1):396-416. doi: 10.1093/nar/gkt898. Epub 2013 Oct 7. PubMed PMID: 24101588; PubMed Central PMCID: PMC3874205.

Ingolia NT, Brar GA, Stern-Ginossar N, Harris MS, Talhouarne GJ, Jackson SE, Wills MR, Weissman JS. Ribosome profiling reveals pervasive translation outside of annotated protein-coding genes. *Cell Rep*. 2014 Sep 11;8(5):1365-79. doi: 10.1016/j.celrep.2014.07.045. Epub 2014 Aug 21. PubMed PMID: 25159147.

Ingolia NT. Ribosome profiling: new views of translation, from single codons to genome scale. *Nat Rev Genet.* 2014 Mar;15(3):205-13. doi: 10.1038/nrg3645. Epub 2014 Jan 28. PubMed PMID: 24468696.

Jiang H, He X, Wang S, Jia J, Wan Y, Wang Y, Zeng R, Yates J 3rd, Zhu X, Zheng Y. A microtubule-associated zinc finger protein, BuGZ, regulates mitotic chromosome alignment by ensuring Bub3 stability and kinetochore targeting. *Dev Cell.* 2014 Feb 10;28(3):268-81. doi: 10.1016/j.devcel.2013.12.013. Epub 2014 Jan 23. PubMed PMID: 24462186; PubMed Central PMCID: PMC3927447.

Liu Z, Vong QP, Liu C, Zheng Y. Borg5 is required for angiogenesis by regulating persistent directional migration of the cardiac microvascular endothelial cells. *Mol Biol Cell.* 2014 Mar;25(6):841-51. doi: 10.1091/mbc.E13-09-0543. Epub 2014 Jan 22. PubMed PMID: 24451259; PubMed Central PMCID: PMC3952853.

Losick VP, Fox DT, Spradling AC. Polyploidization and cell fusion contribute to wound healing in the adult *Drosophila* epithelium. *Curr Biol.* 2013 Nov 18;23(22):2224-32. doi: 10.1016/j.cub.2013.09.029. Epub 2013 Oct 31. PubMed PMID: 24184101; PubMed Central PMCID: PMC3898104.

Malki S, van der Heijden GW, O'Donnell KA, Martin SL, Bortvin A. A role for retrotransposon LINE-1 in fetal oocyte attrition in mice. *Dev Cell.* 2014 Jun 9;29(5):521-33. doi: 10.1016/j.devcel.2014.04.027. Epub 2014 May 29. PubMed PMID: 24882376; PubMed Central PMCID: PMC4056315.

Marianes A, Spradling AC. Physiological and stem cell compartmentalization within the *Drosophila* midgut. *Elife.* 2013 Aug 27;2:e00886. doi: 10.7554/eLife.00886. PubMed PMID: 23991285; PubMed Central PMCID: PMC3755342.

Miyares RL, Stein C, Renisch B, Anderson JL, Hammerschmidt M, Farber SA. Long-chain Acyl-CoA synthetase 4A regulates Smad activity and dorsoventral patterning in the zebrafish embryo. *Dev Cell.* 2013 Dec 23;27(6):635-47. doi: 10.1016/j.devcel.2013.11.011. Epub 2013 Dec 12. PubMed PMID: 24332754; PubMed Central PMCID: PMC3895552.

Miyares RL, de Rezende VB, Farber SA. Zebrafish yolk lipid processing: a tractable tool for the study of vertebrate lipid transport and metabolism. *Dis Model Mech.* 2014 Jul;7(7):915-27. doi: 10.1242/dmm.015800. Epub 2014 May 8. PubMed PMID: 24812437; PubMed Central PMCID: PMC4073280.

Otis JP, Farber SA. Imaging vertebrate digestive function and lipid metabolism in vivo. *Drug Discov Today Dis Models.* 2013;10(1). doi: 10.1016/j.ddmod.2012.02.008. PubMed PMID: 24187571; PubMed Central PMCID: PMC3811959.

Shi C, Channels WE, Zheng Y, Iglesias PA. A computational model for the formation of lamin-B mitotic spindle envelope and matrix. *Interface Focus*. 2014 Jun 6;4(3):20130063. doi: 10.1098/rsfs.2013.0063. PubMed PMID: 24904732; PubMed Central PMCID: PMC3996581.

Southard S, Low S, Li L, Rozo M, Harvey T, Fan CM, Lepper C. A series of Cre-ER(T2) drivers for manipulation of the skeletal muscle lineage. *Genesis*. 2014 Aug;52(8):759-70. doi: 10.1002/dvg.22792. Epub 2014 Jun 3. PubMed PMID: 24844572.

Seppala M, Xavier GM, Fan CM, Cobourne MT. Boc modifies the spectrum of holoprosencephaly in the absence of Gas1 function. *Biol Open*. 2014 Jul 25;3(8):728-40. doi: 10.1242/bio.20147989. PubMed PMID: 25063195; PubMed Central PMCID: PMC4133726.

Talhouarne GJ, Gall JG. Lariat intronic RNAs in the cytoplasm of *Xenopus tropicalis* oocytes. *RNA*. 2014 Sep;20(9):1476-87. doi: 10.1261/rna.045781.114. Epub 2014 Jul 22. PubMed PMID: 25051970; PubMed Central PMCID: PMC4138330.

Wang S, Ketcham SA, Schoen A, Goodman B, Wang Y, Yates J 3rd, Freire E, Schroer TA, Zheng Y. Nudel/NudE and Lis1 promote dynein and dynactin interaction in the context of spindle morphogenesis. *Mol Biol Cell*. 2013 Nov;24(22):3522-33. doi: 10.1091/mbc.E13-05-0283. Epub 2013 Sep 11. PubMed PMID: 24025714; PubMed Central PMCID: PMC3826990.

Webster MT, Fan CM. c-MET regulates myoblast motility and myocyte fusion during adult skeletal muscle regeneration. *PLoS One*. 2013 Nov 19;8(11):e81757. doi: 10.1371/journal.pone.0081757. eCollection 2013. PubMed PMID: 24260586; PubMed Central PMCID: PMC3834319.

Yarosh W, Spradling AC. Incomplete replication generates somatic DNA alterations within *Drosophila* polytene salivary gland cells. *Genes Dev*. 2014 Aug 15;28(16):1840-55. doi: 10.1101/gad.245811.114. PubMed PMID: 25128500.

GEOPHYSICAL LABORATORY

Here updated through September 1, 2014. The list is regularly updated on the Geophysical Laboratory web site (<http://www.gl.ciw.edu>).

- 4679 Ahart, M., C. DeVreugd, J. Li, D. Viehland, P. M. Gehring, and R. J. Hemley, X-ray diffraction study of the pressure-induced bcc-to-hcp phase transition in highly magnetostrictive Fe_{0.81}Ga_{0.19} alloy, *Phys. Rev. B* 88, 184102, 2013.
- Ahart, M., A. Karandikar, S. Gramsch, R. Boehler, and R. J. Hemley, Brillouin scattering measurements of H₂O melting to 30 GPa, *High Pressure Res.*, in press.
- 4802 Ahart, M., S. Kojima, N. Yasuda, and R. J. Hemley, Successive pressure-induced structural transitions in relaxor lead indium niobate, *Ferroelectrics* 467, 138-145, 2014.
- 4745 Alexander, C. M. O'D., G. D. Cody, Y. Kebukawa, R. Bowden, M. L. Fogel, A. L. D. Kilcoyne, L. R. Nittler, and C. D. K. Herd, Elemental, isotopic, and structural changes in Tagish Lake insoluble organic matter produced by parent body processes, *Meteorit. Planet. Sci.* 49, 503-525, 2014.
- 4680 Alexander, C. M. O'D., K. T. Howard, R. Bowden, and M. L. Fogel, The classification of CM and CR chondrites using bulk H, C and N abundances and isotopic compositions, *Geochim. Cosmochim. Acta* 123, 244-260, 2013.
- 4751 Archer, P. D., Jr., H. B. Franz, B. Sutter, R. D. Arevalo, Jr., P. Coll, J. L. Eigenbrode, D. P. Glavin, J. J. Jones, L. A. Leshin, P. R. Mahaffy, A. C. McAdam, C. P. McKay, D. W. Ming, R. V. Morris, R. Navarro-González, P. B. Niles, A. Pavlov, S. W. Squyres, J. C. Stern, A. Steele, and J. J. Wray, Abundances and implications of volatile-bearing species from evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars, *J. Geophys. Res. Planets* 119, 237-254, doi:10.1002/2013JE004493, 2014.
- 4773 Armstrong, J. T., P. McSwiggen, and C. Nielsen, A thermal field-emission electron probe microanalyzer for improved analytical spatial resolution, *Microsc. Anal.* 27 (no. 7), 17-20, 2013.
- 4799 Armstrong, M. R., J. C. Crowhurst, S. Bastea, J. M. Zaug, and A. F. Goncharov, Sub-100 ps laser-driven dynamic compression of solid deuterium with a ~40 μJ laser pulse, *Appl. Phys. Lett.* 105, 021904, 2014.
- 4655 Baker, D. M., R. E. Rodríguez-Martínez, and M. L. Fogel, Tourism's nitrogen footprint on a Mesoamerican coral reef, *Coral Reefs* 32, 691-699, 2013.

- 4782 Baker, J., R. Kumar, N. Velisavljevic, C. Park, C. Kenney-Benson, Y. Kono, A. Cornelius, and Y. Zhao, In situ x-ray diffraction, electrical resistivity and thermal measurements using a Paris-Edinburgh cell at HPCAT 16BM-B beamline, *J. Phys.: Conf. Ser.* 500, 142003, 2014.
- 4787 Bishop, M. M., R. S. Chellappa, Z. Liu, D. N. Preston, M. M. Sandstrom, D. M. Dattelbaum, Y. K. Vohra, and N. Velisavljevic, High pressure-temperature polymorphism of 1,1-diamino-2,2-dinitroethylene, *J. Phys.: Conf. Ser.* 500, 052005, 2014.
- 4661 Blake, D. F., R. V. Morris, G. Kocurek, S. M. Morrison, R. T. Downs, D. Bish, D. W. Ming, K. S. Edgett, D. Rubin, W. Goetz, M. B. Madsen, R. Sullivan, R. Gellert, I. Campbell, A. H. Treiman, S. M. McLennan, A. S. Yen, J. Grotzinger, D. T. Vaniman, S. J. Chipera, C. N. Achilles, E. B. Rampe, D. Sumner, P.-Y. Meslin, S. Maurice, O. Forni, O. Gasnault, M. Fisk, M. Schmidt, P. Mahaffy, L. A. Leshin, D. Glavin, A. Steele, C. Freissinet, R. Navarro-González, R. A. Yingst, L. C. Kah, N. Bridges, K. W. Lewis, T. F. Bristow, J. D. Farmer, J. A. Crisp, E. M. Stolper, D. J. Des Marais, P. Sarrazin, and MSL Science Team, Curiosity at Gale Crater, Mars: characterization and analysis of the Rocknest sand shadow, *Science* 341, 1239505, 2013.
- 4686 Boehler, R., M. Guthrie, J. J. Molaison, A. M. dos Santos, S. Sinogeikin, S. Machida, N. Pradhan, and C. A. Tulk, Large-volume diamond cells for neutron diffraction above 90 GPa, *High Pressure Res.* 33, 546-554, 2013.
- 4688 Bolukbasi, B., N. Berente, J. Cutcher-Gershenfeld, L. Dechurch, C. Flint, M. Haberman, J. L. King, E. Knight, B. Lawrence, E. Masella, C. McElroy, B. Mittleman, M. Nolan, M. Radik, N. Shin, C. A. Thompson, S. Winter, I. Zaslavsky, M. L. Allison, D. Arctur, J. Arrigo, A. K. Aufdenkampe, J. Bass, J. Crowell, M. Daniels, S. Diggs, C. Duffy, Y. Gil, B. Gomez, S. Graves, R. Hazen, L. Hsu, D. Kinkade, K. Lehnert, C. Marone, D. Middleton, A. Noren, G. Pearthree, M. Ramamurthy, E. Robinson, G. Percivall, S. Richard, C. Suarez, and D. Walker, Open data: crediting a culture of cooperation, *Science* 342, 1041-1042, 2013.
- 4783 Bowden, P. R., R. S. Chellappa, D. M. Dattelbaum, V. W. Manner, N. H. Mack, and Z. Liu, The high-pressure phase stability of 2,4,6-trinitrotoluene (TNT), *J. Phys.: Conf. Ser.* 500, 052006, 2014.
- 4791 Cellura, D., V. Stagno, M. Camarda, and M. Valenza, Diffuse soil CO₂ degassing from Linosa island, *Ann. Geophys.* 57, S0329, doi:10.4401/ag-6476, 2014.
- 4681 Chang, Y.-Y., S. D. Jacobsen, J.-F. Lin, C. R. Bina, S.-M. Thomas, J. Wu, G. Shen, Y. Xiao, P. Chow, D. J. Frost, C. A. McCammon, and P. Dera, Spin transition of Fe³⁺ in Al-bearing phase D: an alternative explanation for small-scale seismic scatterers in the mid-lower mantle, *Earth Planet. Sci. Lett.* 382, 1-9, 2013.

- 4821 Chellappa, R. S., D. M. Dattelbaum, J. D. Coe, N. Velisavljevic, L. L. Stevens, and Z. Liu, Intermolecular stabilization of 3,3'-diamino-4,4'-azoxyfuran (DAAF) compressed to 20 GPa, *J. Phys. Chem. A* *118*, 5969-5982, 2014.
- 4784 Chellappa, R., D. Dattelbaum, L. Daemen, and Z. Liu, High pressure spectroscopic studies of hydrazine (N₂H₄), *J. Phys.: Conf. Ser.* *500*, 052008, 2014.
- 4734 Chen, B., K. Lutker, J. Lei, J. Yan, S. Yang, and H. K. Mao, Detecting grain rotation at the nanoscale, *Proc. Natl. Acad. Sci. USA* *111*, 3350-3353, 2014.
- 4669 Chen, H.-H., Y. Bi, H. K. Mao, J.-A. Xu, L. Liu, Q.-M. Jing, Z. Li, X.-R. Chen, and Q.-M. Wang, High-pressure strength of nanocrystalline tantalum carbide (TaC) studied at a non-hydrostatic compression, *Int. J. Refract. Met. Hard Mater.* *41*, 627-630, 2013.
- 4697 Chen, Y., X. Xi, W.-L. Yim, F. Peng, Y. Wang, H. Wang, Y. Ma, G. Liu, C. Sun, C. Ma, Z. Chen, and H. Berger, High-pressure phase transitions and structures of topological insulator BiTeI, *J. Phys. Chem. C* *117*, 25677-25683, 2013.
- 4692 Cheng, J.-G., K. E. Kweon, J.-S. Zhou, J. A. Alonso, P.-P. Kong, Y. Liu, C. Jin, J. Wu, J.-F. Lin, S. A. Larregola, W. Yang, G. Shen, A. H. MacDonald, A. Manthiram, G. S. Hwang, and J. B. Goodenough, Anomalous perovskite PbRuO₃ stabilized under high pressure, *Proc. Natl. Acad. Sci. USA* *110*, 20003-20007, 2013.
- 4798 Chi, Z.-H., X.-M. Zhao, H. Zhang, A. F. Goncharov, S. S. Lobanov, T. Kagayama, M. Sakata, and X.-J. Chen, Pressure-induced metallization of molybdenum disulphide, *Phys. Rev. Lett.* *113*, 036802, 2014.
- 4807 Dähn, R., D. Popov, P. Schaub, P. Pattison, D. Grolimund, U. Mäder, A. Jenni, and E. Wieland, X-ray micro-diffraction studies of heterogeneous interfaces between cementitious materials and geological formations, *Phys. Chem. Earth* *70-71*, 96-103, 2014.
- Dalou, C., B. O. Mysen, and D. Foustoukos, In-situ measurement of fluorine and chlorine speciation and fractionation between aluminosilicate melts and aqueous fluids, *Am. Mineral.*, in press.
- 4652 Dera, P., G. J. Finkelstein, T. S. Duffy, R. T. Downs, Y. Meng, V. Prakapenka, and S. Tkachev, Metastable high-pressure transformations of orthoferrosilite Fs₈₂, *Phys. Earth Planet. Inter.* *221*, 15-21, 2013.
- 4724 Ding, Y., C.-C. Chen, Q. Zeng, H.-S. Kim, M. J. Han, M. Balasubramanian, R. Gordon, F. Li, L. Bai, D. Popov, S. M. Heald, T. Gog, H. K. Mao, and M. van Veenendaal, Novel high-pressure monoclinic metallic phase of V₂O₃, *Phys. Rev. Lett.* *112*, 056401, 2014.

- 4725 Doherty, M. W., V. V. Struzhkin, D. A. Simpson, L. P. McGuinness, Y. Meng, A. Stacey, T. J. Karle, R. J. Hemley, N. B. Manson, L. C. L. Hollenberg, and S. Prawer, Electronic properties and metrology applications of the diamond NV⁻ center under pressure, *Phys. Rev. Lett.* *112*, 047601, 2014.
- 4737 Dong, H., S. M. Dorfman, C. M. Holl, Y. Meng, V. B. Prakapenka, D. He, and T. S. Duffy, Compression of lithium fluoride to 92 GPa, *High Pressure Res.* *34*, 39-48, 2014.
- 4806 Dvorak, M., X.-J. Chen, and Z. Wu, Quasiparticle energies and excitonic effects in dense solid hydrogen near metallization, *Phys. Rev. B* *90*, 035103, 2014.
- 4732 Efthimiopoulos, I., J. Kemichick, X. Zhou, S. V. Khare, D. Ikuta, and Y. Wang, High-pressure studies of Bi₂S₃, *J. Phys. Chem. A* *118*, 1713-1720, 2014.
- 4695 Efthimiopoulos, I., A. Yaresko, V. Tsurkan, J. Deisenhofer, A. Loidl, C. Park, and Y. Wang, Multiple pressure-induced transitions in HgCr₂S₄, *Appl. Phys. Lett.* *103*, 201908, 2013.
- 4715 Efthimiopoulos, I., A. Yaresko, V. Tsurkan, J. Deisenhofer, A. Loidl, C. Park, and Y. Wang, Pressurizing the HgCr₂Se₄ spinel at room temperature, *Appl. Phys. Lett.* *104*, 011911, 2014.
- 4660 Efthimiopoulos, I., J. M. Zhang, M. Kucway, C. Park, R. C. Ewing, and Y. Wang, Sb₂Se₃ under pressure, *Sci. Rep.* *3*, 2665, 2013.
- 4776 Ernst, W. G., R. M. Hazen, and B. Mysen, Hatten S. Yoder, Jr., March 20, 1921-August 2, 2003, in *Biographical Memoirs of the National Academy of Sciences*, National Academies Press, Washington, D.C., 2014. <http://www.nasonline.org/publications/biographical-memoirs/memoir-pdfs/yoder-hatten.pdf>
- 4775 Ernst, W. G., and R. J. Hemley, Francis Raymond Boyd, Jr., January 30, 1926-January 12, 2004, in *Biographical Memoirs of the National Academy of Sciences*, National Academies Press, Washington, D.C., 2014. <http://www.nasonline.org/publications/biographical-memoirs/memoir-pdfs/boyd-francis.pdf>
- 4741 Facq, S., I. Daniel, G. Montagnac, H. Cardon, and D. A. Sverjensky, *In situ* Raman study and thermodynamic model of aqueous carbonate speciation in equilibrium with aragonite under subduction zone conditions, *Geochim. Cosmochim. Acta* *132*, 375-390, 2014.
- 4704 Fan, C. Z., J. Li, M. Hu, Z. S. Zhao, B. Xu, and J. L. He, A novel layer-structured PtN₂: first-principles calculations, *J. Superhard Mater.* *35*, 339-349, 2013. [Also published in *Sverkhtverdye Materialy* *35* (no. 6), 14-27, 2013.]

- ____ Farahi, N., M. VanZant, J. Zhao, J. S. Tse, S. Prabhudev, G. A. Botton, J. R. Salvador, F. Borondics, Z. Liu, and H. Kleinke, Sb- and Bi-doped Mg₂Si: location of the dopants, micro- and nanostructures, electronic structures and thermoelectric properties, *Dalton Trans.*, in press.
- 4711 Farley, K. A., C. Malespin, P. Mahaffy, J. P. Grotzinger, P. M. Vasconcelos, R. E. Milliken, M. Malin, K. S. Edgett, A. A. Pavlov, J. A. Hurowitz, J. A. Grant, H. B. Miller, R. Arvidson, L. Beegle, F. Calef, P. G. Conrad, W. E. Dietrich, J. Eigenbrode, R. Gellert, S. Gupta, V. Hamilton, D. M. Hassler, K. W. Lewis, S. M. McLennan, D. Ming, R. Navarro-González, S. P. Schwenzer, A. Steele, E. M. Stolper, D. Y. Sumner, D. Vaniman, A. Vasavada, K. Williford, R. F. Wimmer-Schweingruber, and MSL Science Team, In situ radiometric and exposure age dating of the Martian surface, *Science* 343, 1247166, 2014.
- 4790 Fei, Y., Simulation of the planetary interior differentiation processes in the laboratory, *J. Visualized Exp.* 81, e50778, doi:10.3791/50778, 2013.
- 4803 Feldman, J. L., D. J. Singh, and N. Bernstein, Lattice-dynamical model for filled skutterudite LaF₄Sb₁₂: harmonic and anharmonic couplings, *Phys. Rev. B* 89, 224304, 2014.
- 4706 Finkelstein, G. J., P. K. Dera, S. Jahn, A. R. Oganov, C. M. Holl, Y. Meng, and T. S. Duffy, Phase transition and equation of state of forsterite to 90 GPa from single-crystal X-ray diffraction and molecular modeling, *Am. Mineral.* 99, 35-43, 2014.
- 4659 Fiore, C. L., D. M. Baker, and M. P. Lesser, Nitrogen biogeochemistry in the Caribbean sponge, *Xestospongia muta*: a source or sink of dissolved inorganic nitrogen? *PLoS One* 8(8), e72961, 2013.
- ____ Fitzgibbons, T. C., M. Guthrie, E.-S. Xu, V. H. Crespi, S. K. Davidowski, G. D. Cody, N. Alem, and J. V. Badding, Benzene-derived carbon nanothreads with sp³ bonding, *Nature Mater.*, in press.
- 4675 Fogel, M. L., and A. Steele, Nitrogen in extraterrestrial environments: clues to the possible presence of life, *Elements* 9, 367-372, 2013.
- ____ Foustoukos, D. I., M. Bizimis, C. Frisby, and S. B. Shirey, Redox controls on Ni-Fe-PGE mineralization and Re/Os fractionation during serpentinization of abyssal peridotite, *Geochim. Cosmochim. Acta*, in press.
- ____ Foustoukos, D. I., and B. O. Mysen, The structure of water-saturated carbonate melts, *Am. Mineral.*, in press.
- 4699 Freiman, Yu. A., A. Grechnev, S. M. Tretyak, A. F. Goncharov, C. S. Zha, and R. J. Hemley, Sound velocities of hexagonal close-packed H₂ and He under pressure, *Phys. Rev. B* 88, 214501, 2013.

- 4794 Freiman, Yu. A., S. M. Tretyak, A. Grechnev, A. F. Goncharov, and R. J. Hemley, Crystal-field phenomena in hcp H₂ and D₂ at high pressures, *Phys. Rev. B* 90, 024501, 2014.
- 4700 Galvez, M. E., I. Martinez, O. Beyssac, K. Benzerara, P. Agrinier, and N. Assayag, Metasomatism and graphite formation at a lithological interface in Malaspina (Alpine Corsica, France), *Contrib. Mineral. Petrol.* 166, 1687-1708, 2013.
- 4673 Gavriluk, A. G., I. S. Lyubutin, S. S. Starchikov, A. A. Mironovich, S. G. Ovchinnikov, I. A. Trojan, Y. Xiao, P. Chow, S. V. Sinogeikin, and V. V. Struzhkin, The magnetic P-T phase diagram of langasite Ba₃TaFe₃Si₂O₁₄ at high hydrostatic pressures up to 38 GPa, *J. Appl. Phys.* 103, 162402, 2013.
- 4693 Ge, W., C. P. DeVreugd, D. Phelan, Q. Zhang, M. Ahart, J. Li, H. Luo, L. A. Boatner, D. Vieland, and P. M. Gehring, Lead-free and lead-based ABO₃ perovskite relaxors with mixed-valence A-site and B-site disorder: comparative neutron scattering structural study of (Na_{1/2}Bi_{1/2})TiO₃ and Pb(Mg_{1/3}Nb_{2/3})O₃, *Phys. Rev. B* 88, 174115, 2013.
- 4684 Glavin, D. P., C. Freissinet, K. E. Miller, J. L. Eigenbrode, A. E. Brunner, A. Buch, B. Sutter, P. D. Archer, Jr., S. K. Atreya, W. B. Brinckerhoff, M. Cabane, P. Coll, P. G. Conrad, D. Coscia, J. P. Dworkin, H. B. Franz, J. P. Grotzinger, L. A. Leshin, M. G. Martin, C. McKay, D. W. Ming, R. Navarro-González, A. Pavlov, A. Steele, R. E. Summons, C. Szopa, S. Teinturier, and P. R. Mahaffy, Evidence for perchlorates and the origin of chlorinated hydrocarbons detected by SAM at the Rocknest aeolian deposit in Gale Crater, *J. Geophys. Res. Planets* 118, 1955-1973, doi:10.1002/jgre.20144, 2013.
- 4678 Greenwalt, D. E., Y. S. Goreva, S. M. Siljeström, T. Rose, and R. E. Harbach, Hemoglobin-derived porphyrins preserved in a Middle Eocene blood-engorged mosquito, *Proc. Natl. Acad. Sci. USA* 110, 18496-18500, 2013.
- 4750 Grew, E. S., and R. M. Hazen, Beryllium mineral evolution, *Am. Mineral.* 99, 999-1021, 2014.
- 4768 Grew, E. S., and R. M. Hazen, Evolution of the minerals of beryllium, *Stein (Norske Amatørgeologers Sammenslutning) 2013 (no. 1)*, 4-19, 2013.
- _____ Grosch, E. G., N. Mcloughlin, and R. M. Hazen, Microbes, mineral evolution, and the rise of micro-continents, *Astrobiology*, in press.

- 4712 Grotzinger, J. P., D. Y. Sumner, L. C. Kah, K. Stack, S. Gupta, L. Edgar, D. Rubin, K. Lewis, J. Schieber, N. Mangold, R. Milliken, P. G. Conrad, D. Des Marais, J. Farmer, K. Siebach, F. Calef III, J. Hurowitz, S. M. McLennan, D. Ming, D. Vaniman, J. Crisp, A. Vasavada, K. S. Edgett, M. Malin, D. Blake, R. Gellert, P. Mahaffy, R. C. Wiens, S. Maurice, J. A. Grant, S. Wilson, R. C. Anderson, L. Beegle, R. Arvidson, B. Hallet, R. S. Sletten, M. Rice, J. Bell III, J. Griffes, B. Ehlmann, R. B. Anderson, T. F. Bristow, W. E. Dietrich, G. Dromart, J. Eigenbrode, A. Fraeman, C. Hardgrove, K. Herkenhoff, L. Jandura, G. Kocurek, S. Lee, L. A. Leshin, R. Leveille, D. Limonadi, J. Maki, S. McCloskey, M. Meyer, M. Minitti, H. Newsom, D. Oehler, A. Okon, M. Palucis, T. Parker, S. Rowland, M. Schmidt, S. Squyres, A. Steele, E. Stolper, R. Summons, A. Treiman, R. Williams, A. Yingst, and MSL Science Team, A habitable fluvio-lacustrine environment at Yellowknife Bay, Gale Crater, Mars, *Science* 343, 1242777, 2014.
- 4739 Gu, T., Y. Fei, X. Wu, and S. Qin, High-pressure behavior of Fe₃P and the role of phosphorus in planetary cores, *Earth Planet. Sci. Lett.* 390, 296-303, 2014.
- 4774 Guo, Y., Y. Yoda, X. Zhang, Y. Xiao, and S. P. Cramer, Synchrotron radiation-based nuclear resonant scattering: applications to bioinorganic chemistry, in *Mössbauer Spectroscopy: Applications in Chemistry, Biology, and Nanotechnology*, V. K. Sharma, G. Klingelhöfer, and T. Nishida, eds., pp. 249-271, Wiley, Hoboken, N.J., 2013.
- 4720 Gupta, N. S., A. Steele, M. Fogel, P. Griffin, M. Adams, R. E. Summons, H. Yang, and G. D. Cody, Experimental formation of geomacromolecules from microbial lipids, *Org. Geochem.* 67, 35-40, 2014.
- 4754 Haberl, B., M. Guthrie, B. D. Malone, J. S. Smith, S. V. Sinogeikin, M. L. Cohen, J. S. Williams, G. Shen, and J. E. Bradby, Controlled formation of metastable germanium polymorphs, *Phys. Rev. B* 89, 144111, 2014.
- 4767 Hardy, S. J., Open access publishing in the geosciences: case study of the Deep Carbon Observatory, in *Geoscience Information: Investing in the Future*, R. Tolliver, ed., pp. 73-81, GSIS Proceedings, Vol. 43, Geoscience Information Society, Alexandria, Virginia, 2013.
- 4696 Hazen, R. M., Paleomineralogy of the Hadean Eon: a preliminary species list, *Am. J. Sci.* 313, 807-843, 2013.
- 4795 Hazen, R. M., Mineral fodder, *Aeon Mag.*, 2014 June 24. <http://aeon.co/magazine/nature-and-cosmos/how-life-transformed-the-planet/>
- 4801 Hazen, R. M., *The Origin and Evolution of Earth: From the Big Bang to the Future of Human Existence* [12 lectures on DVD and audio CD, with course guide], The Teaching Company, Chantilly, Virginia, 2013.
- _____ Hazen, R. M., Data-driven discovery in mineralogy, *Am. Mineral.*, in press.

- _____ Hazen, R. M., Enantioselective adsorption on rock-forming minerals: a thought experiment, *Surf. Sci.*, in press.
- 4823 Hazen, R. M., M. Enjoji, and K. Watarai, *Chikyū shinka yonjūrokuokunen no monogatari [The Story of Earth]* (in Japanese), Kodansha, Tokyo, 377 pp., 2014.
- 4824 Hazen, R. M., and M. S. Kim, *Jigu iyagi: gwangmulgwa saengmului gongjinhwaro puneun jiguui yeoksa [The Story of Earth]* (in Korean), Puriwa Ipari, Seoul, 357 pp., 2014.
- _____ Hazen, R. M., X.-M. Liu, R. T. Downs, J. Golden, E. S. Grew, G. Hystad, C. Estrada, and D. A. Sverjensky, Mineral evolution: episodic metallogenesis, the supercontinent cycle, and the coevolving geosphere and biosphere, in *Special Publication 18*, Society of Economic Geologists, Littleton, Colorado, in press.
- 4682 Hazen, R. M., D. A. Sverjensky, D. Azzolini, D. L. Bish, S. C. Elmore, L. Hinnov, and R. E. Milliken, Clay mineral evolution, *Am. Mineral.* 98, 2007-2029, 2013.
- _____ Hemley, R. J., V. V. Struzhkin, R. E. Cohen, and G. Shen, Theory and practice – Measuring high-pressure electronic and magnetic properties, in *Treatise on Geophysics, 2nd ed.*, Elsevier, in press.
- 4722 Hofmann, A., A. Bekker, P. Dirks, B. Gueguen, D. Rumble, and O. J. Rouxel, Comparing orthomagmatic and hydrothermal mineralization models for komatiite-hosted nickel deposits in Zimbabwe using multiple-sulfur, iron, and nickel isotope data, *Miner. Deposita* 49, 75-100, 2014.
- 4805 Hu, M., Q. Huang, Z. Zhao, B. Xu, D. Yu, and J. He, Superhard and high-strength yne-diamond semimetals, *Diamond Rel. Mater.* 46, 15-20, 2014.
- 4656 Huang, Q.-W., J. Zhang, A. Berlie, Z.-X. Qin, X.-M. Zhao, J.-B. Zhang, L.-Y. Tang, J. Liu, C. Zhang, G.-H. Zhong, H.-Q. Lin, and X.-J. Chen, Structural and vibrational properties of phenanthrene under pressure, *J. Chem. Phys.* 139, 104302, 2013.
- 4746 Huang, Q.-W., G.-H. Zhong, J. Zhang, X.-M. Zhao, C. Zhang, H.-Q. Lin, and X.-J. Chen, Constraint on the potassium content for the superconductivity of potassium-intercalated phenanthrene, *J. Chem. Phys.* 140, 5, 2014.
- 4683 Hynek, B. M., T. M. McCollom, E. C. Marcucci, K. Brugman, and K. L. Rogers, Assessment of environmental controls on acid-sulfate alteration at active volcanoes in Nicaragua: applications to relic hydrothermal systems on Mars, *J. Geophys. Res. Planets* 118, 2083-2104, doi:10.1002/jgre.20140, 2013.
- 4702 Ivarsson, M., C. Broman, E. Sturkell, J. Ormö, S. Siljeström, M. van Zuilen, and S. Bengtson, Fungal colonization of an Ordovician impact-induced hydrothermal system, *Sci. Rep.* 3, 3487, 2013.

- 4760 Jing, Z., Y. Wang, Y. Kono, T. Yu, T. Sakamaki, C. Park, M. L. Rivers, S. R. Sutton, and G. Shen, Sound velocity of Fe-S liquids at high pressure: implications for the Moon's molten outer core, *Earth Planet. Sci. Lett.* 396, 78-87, 2014.
- Kalita, P. E., A. Cornelius, K. Lipinska, S. Sinogeikin, R. X. Fischer, H. Lührs, and H. Schneider, High pressure behavior of 7:4 mullite and boron-substituted mullite: compressibility and mechanisms of amorphization, *J. Am. Ceram. Soc.*, in press.
- 4815 Kao, T. L., C. Y. Shi, J. Wang, W. L. Mao, Y. Liu, and W. Yang, Nanoscale elemental sensitivity study of Nd₂Fe₁₄B using absorption correlation tomography, *Microsc. Res. Tech.* 76, 1112-1117, 2013.
- 4766 Ke, F., C. Liu, Y. Gao, J. Zhang, D. Tan, Y. Han, Y. Ma, J. Shu, W. Yang, B. Chen, H. K. Mao, X.-J. Chen, and C. Gao, Interlayer-glide-driven isosymmetric phase transition in compressed In₂Se₃, *Appl. Phys. Lett.* 104, 212102, 2014.
- 4772 Ko, J.-H., M.-S. Jeong, B. W. Lee, J. H. Kim, Y. H. Ko, K. J. Kim, T. H. Kim, S. Kojima, and M. Ahart, Pressure dependence of acoustic properties of liquid ethanol by using high-pressure Brillouin spectroscopy, *Korean J. Opt. Photonics* 24, 279-286, 2013.
- 4672 Kong, L., G. Liu, S. J. Zhang, and H. Liu, The role of tetragonal side morphotropic phase boundary in modified relaxor-PbTiO₃ crystals for high power transducer applications, *J. Appl. Phys.* 114, 144106, 2013.
- 4654 Kong, P. P., J. L. Zhang, S. J. Zhang, J. Zhu, Q. Q. Liu, R. C. Yu, Z. Fang, C. Q. Jin, W. G. Yang, X. H. Yu, J. L. Zhu, and Y. S. Zhao, Superconductivity of the topological insulator Bi₂Se₃ at high pressure, *J. Phys.: Cond. Matter* 25, 362204, 2013.
- 4763 Kono, Y., C. Park, C. Kenney-Benson, G. Shen, and Y. Wang, Toward comprehensive studies of liquids at high pressures and high temperatures: combined structure, elastic wave velocity, and viscosity measurements in the Paris-Edinburgh cell, *Phys. Earth Planet. Inter.* 228, 269-280, 2014.
- 4726 Kumar, R. S., Y. Zhang, A. Thamizhavel, A. Svane, G. Vaitheeswaran, V. Kanchana, Y. Xiao, P. Chow, C. Chen, and Y. Zhao, Pressure induced valence change of Eu in EuFe₂As₂ at low temperature and high pressures probed by resonant inelastic x-ray scattering, *Appl. Phys. Lett.* 104, 042601, 2014.
- 4742 Kurakevych, O. O., Y. Le Godec, T. A. Strobel, D. Y. Kim, W. A. Crichton, and J. Guignard, High-pressure and high-temperature stability of antiferroite Mg₂C by in situ X-ray diffraction and ab initio calculations, *J. Phys. Chem. C* 118, 8128-8133, 2014.

- 4770 Lavina, B., P. Dera, and Y. Meng, Synthesis and microdiffraction at extreme pressures and temperatures, *J. Visualized Exp.* 80, e50613, doi:10.3791/50613, 2013.
- 4829 Lazar, C., C. Zhang, C. E. Manning, and B. O. Mysen, Redox effects on calcite-portlandite-fluid equilibria at forearc conditions: carbon mobility, methanogenesis, and reduction melting of calcite, *Am. Mineral.* 99, 1604-1615, 2014.
- _____ Le Losq, C., G. D. Cody, and B. O. Mysen, Alkali influence on the water speciation and the environment of protons in silicate glasses revealed by ^1H MAS NMR spectroscopy, *Am. Mineral.*, in press.
- 4752 Lee, N., D. I. Foustoukos, D. A. Sverjensky, G. D. Cody, and R. M. Hazen, The effects of temperature, pH and redox state on the stability of glutamic acid in hydrothermal fluids, *Geochim. Cosmochim. Acta* 135, 66-86, 2014.
- _____ Lee, N., D. I. Foustoukos, D. A. Sverjensky, G. D. Cody, and R. M. Hazen, Hydrogen enhances the stability of amino acids in hydrothermal environments, *Chem. Geol.*, in press.
- _____ Lee, N., D. A. Sverjensky, and R. M. Hazen, Cooperative and competitive adsorption of amino acids with Ca^{2+} on rutile ($\alpha\text{-TiO}_2$), *Environ. Sci. Technol.*, in press.
- 4748 Lee, S. K., P. J. Eng, and H. K. Mao, Probing of pressure-induced bonding transitions in crystalline and amorphous earth materials: insights from X-ray Raman scattering at high pressure, *Rev. Mineral. Geochem.* 78, 139-174, 2014.
- 4662 Leshin, L. A., P. R. Mahaffy, C. R. Webster, M. Cabane, P. Coll, P. G. Conrad, P. D. Archer, Jr., S. K. Atreya, A. E. Brunner, A. Buch, J. L. Eigenbrode, G. J. Flesch, H. B. Franz, C. Freissinet, D. P. Glavin, A. C. McAdam, K. E. Miller, D. W. Ming, R. V. Morris, R. Navarro-González, P. B. Nilés, T. Owen, R. O. Pepin, S. Squyres, A. Steele, J. C. Stern, R. E. Summons, D. Y. Sumner, B. Sutter, C. Szopa, S. Teinturier, M. G. Trainer, J. J. Wray, J. P. Grotzinger, and MSL Science Team, Volatile, isotope, and organic analysis of Martian fines with the Mars Curiosity Rover, *Science* 341, 1238937, 2013.
- 4690 Li, K., H. Zheng, I. N. Ivanov, M. Guthrie, Y. Xiao, W. Yang, C. A. Tulk, Y. Zhao, and H. K. Mao, $\text{K}_3\text{Fe}(\text{CN})_6$: pressure-induced polymerization and enhanced conductivity, *J. Phys. Chem. C* 117, 24174-24180, 2013.
- 4689 Li, Y.-L., W. Luo, X.-J. Chen, Z. Zeng, H.-Q. Lin, and R. Ahuja, Formation of nanofoam carbon and re-emergence of superconductivity in compressed CaC_6 , *Sci. Rep.* 3, 3331, 2013.

- 4780 Li, Z., J. Wang, L. Wang, X. Bai, H. Song, Q. Zhou, T. Wei, D. An, and B. Liu, The pressure induced amorphization and behavior of octahedron in Y_2O_3/Eu^{3+} nanotubes, *Mater. Res. Express* 1, 025013, 2014.
- 4796 Liang, Q., C.-S. Yan, J. Lai, Y.-F. Meng, S. Krasnicki, H. Shu, H. K. Mao, and R. J. Hemley, Large area single-crystal diamond synthesis by 915 MHz microwave plasma-assisted chemical vapor deposition, *Cryst. Growth Des.* 14, 3234-3238, 2014.
- 4777 Lin, J.-F., E. E. Alp, and A. F. Goncharov, Raman and nuclear resonant spectroscopy in geosciences, in *Treatise on Geochemistry, 2nd ed., Vol. 15: Analytical Geochemistry/Inorganic Instrument Analysis*, W. F. McDonough, ed., pp. 195-211, Elsevier, Oxford, 2014.
- 4778 Lin, Y., Q. Zeng, W. Yang, and W. L. Mao, Pressure-induced densification in GeO_2 glass: a transmission x-ray microscopy study, *Appl. Phys. Lett.* 103, 261909, 2013.
- 4785 Lipp, M. J., Zs. Jenei, D. Ruddle, C. Aracne-Ruddle, H. Cynn, W. J. Evans, Y. Kono, C. Kenney-Benson, and C. Park, Equation of state measurements by radiography provide evidence for a liquid-liquid phase transition in cerium, *J. Phys.: Conf. Ser.* 500, 032011, 2014.
- 4822 Liu, D., X. Chen, Y. Ma, Z. Liu, T. Vogt, and Y. Lee, Spectroscopic and computational characterizations of alkaline-earth- and heavy-metal-exchanged natrolites, *ChemPlusChem* 79, 1096-1102, 2014.
- 4753 Liu, L., Y. Kono, C. Kenney-Benson, W. Yang, Y. Bi, and G. Shen, Chain breakage in liquid sulfur at high pressures and high temperatures, *Phys. Rev. B* 89, 174201, 2014.
- 4779 Liu, Y., J. Wang, M. Azuma, W. L. Mao, and W. Yang, Five-dimensional visualization of phase transition in $BiNiO_3$ under high pressure, *Appl. Phys. Lett.* 104, 043108, 2014.
- 4666 Lobanov, S. S., P.-N. Chen, X.-J. Chen, C.-S. Zha, K. D. Litasov, H. K. Mao, and A. F. Goncharov, Carbon precipitation from heavy hydrocarbon fluid in deep planetary interiors, *Nature Commun.* 4, 2446, 2013. [Corrigendum published in *Nature Commun.* 4, 2868, 2013.]
- 4718 Lü, X., Q. Hu, W. Yang, L. Bai, H. Sheng, L. Wang, F. Huang, J. Wen, D. J. Miller, and Y. Zhao, Pressure-induced amorphization in single-crystal Ta_2O_5 nanowires: a kinetic mechanism and improved electrical conductivity, *J. Am. Chem. Soc.* 135, 13947-13953, 2013.
- 4714 Lü, X., W. Yang, Z. Quan, T. Lin, L. Bai, L. Wang, F. Huang, and Y. Zhao, Enhanced electron transport in Nb-doped TiO_2 nanoparticles via pressure-induced phase transitions, *J. Am. Chem. Soc.* 136, 419-426, 2014.

- Mandal, M., F. Haso, T. Liu, Y. Fei, and K. Landskron, Size tunable synthesis of solution processable diamond nanocrystals, *Chem. Commun.*, in press.
- 4810 Mandal, S., R. E. Cohen, and K. Haule, Strong pressure-dependent electron-phonon coupling in FeSe, *Phys. Rev. B* *89*, 220502, 2014.
- 4828 Mandal, S., R. E. Cohen, and K. Haule, Pressure suppression of electron correlation in the collapsed tetragonal phase of CaFe₂As₂: a DFT-DMFT investigation, *Phys. Rev. B* *90*, 060501, 2014.
- 4717 Manoun, B., Y. Tamraoui, P. Lazor, and W. G. Yang, Phase transitions in heated Sr₂MgTeO₆ double perovskite oxide probed by X-ray diffraction and Raman spectroscopy, *Appl. Phys. Lett.* *103*, 261908, 2013.
- 4816 Mao, Z., J.-F. Lin, J. Yang, H. Bian, J. Liu, H. C. Watson, S. Huang, J. Chen, V. B. Prakapenka, Y. Xiao, and P. Chow, (Fe,Al)-bearing post-perovskite in the Earth's lower mantle, *Earth Planet. Sci. Lett.* *403*, 157-165, 2014.
- 4728 Mao, Z., J.-F. Lin, J. Yang, J. Wu, H. C. Watson, Y. Xiao, P. Chow, and J. Zhao, Spin and valence states of iron in Al-bearing silicate glass at high pressures studied by synchrotron Mössbauer and X-ray emission spectroscopy, *Am. Mineral.* *99*, 415-423, 2014.
- 4685 Marcucci, E. C., B. M. Hynek, K. S. Kierein-Young, and K. L. Rogers, Visible-near-infrared reflectance spectroscopy of volcanic acid-sulfate alteration in Nicaragua: analogs for early Mars, *J. Geophys. Res. Planets* *118*, 2213-2233, doi:10.1002/jgre.20159, 2013.
- 4818 Marov, M. Ya., and W. T. Huntress, *Sovyetskiye Roboti v Solnyechnoi Sistyemye: Technologii i Otkryitiya [Soviet Robots in the Solar System: Mission Technologies and Discoveries]* (in Russian), FIZMATLIT, Moscow, 612 pp., 2013.
- 4769 Marquardt, H., S. Speziale, A. Gleason, S. Sinogeikin, I. Kantor, and V. B. Prakapenka, Brillouin scattering and x-ray diffraction of solid argon to 65 GPa and 700 K: shear strength of argon at HP/HT, *J. Appl. Phys.* *114*, 093517, 2013.
- 4691 Maynard, J. B., S. J. Sutton, D. Rumble III, and A. Bekker, Mass-independently fractionated sulfur in Archean paleosols: a large reservoir of negative $\Delta^{33}\text{S}$ anomaly on the early Earth, *Chem. Geol.* *362*, 74-81, 2013.
- 4757 McAdam, A. C., H. B. Franz, B. Sutter, P. D. Archer, Jr., C. Freissinet, J. L. Eigenbrode, D. W. Ming, S. K. Atreya, D. L. Bish, D. F. Blake, H. E. Bower, A. Brunner, A. Buch, D. P. Glavin, J. P. Grotzinger, P. R. Mahaffy, S. M. McLennan, R. V. Morris, R. Navarro-González, E. B. Rampe, S. W. Squyres, A. Steele, J. C. Stern, D. Y. Sumner, and J. J. Wray, Sulfur-bearing phases detected by evolved gas analysis of the Rocknest aeolian deposit, Gale Crater, Mars, *J. Geophys. Res. Planets* *119*, 373-393, doi:10.1002/2013je004518, 2014.

- 4667 McCollom, T. M., B. M. Hynek, K. Rogers, B. Moskowitz, and T. S. Berquó, Chemical and mineralogical trends during acid-sulfate alteration of pyroclastic basalt at Cerro Negro volcano and implications for early Mars, *J. Geophys. Res. Planets* 118, 1719-1751, doi:10.1002/jgre.20114, 2013.
- McCubbin, F. M., D. A. Sverjensky, A. Steele, and B. Mysen, *In-situ* characterization of oxalic acid breakdown at elevated P and T: implications for organic C-O-H fluid sources in petrologic experiments, *Am. Mineral.*, in press.
- 4759 Mikhail, S., C. Guillermier, I. A. Franchi, A. D. Beard, K. Crispin, A. B. Verchovsky, A. P. Jones, and H. J. Milledge, Empirical evidence for the fractionation of carbon isotopes between diamond and iron carbide from the Earth's mantle, *Geochem. Geophys. Geosyst.* 15, 855-866, doi:10.1002/2013gc005138, 2014.
- Mikhail, S., and D. A. Sverjensky, Nitrogen speciation in upper mantle fluids and the origin of Earth's nitrogen-rich atmosphere, *Nature Geosci.*, in press.
- 4723 Mikhail, S., A. B. Verchovsky, D. Howell, M. T. Hutchison, R. Southworth, A. R. Thomson, P. Warburton, A. P. Jones, and H. J. Milledge, Constraining the internal variability of the stable isotopes of carbon and nitrogen within mantle diamonds, *Chem. Geol.* 366, 14-23, 2014.
- 4710 Ming, D. W., P. D. Archer, Jr., D. P. Glavin, J. L. Eigenbrode, H. B. Franz, B. Sutter, A. E. Brunner, J. C. Stern, C. Freissinet, A. C. McAdam, P. R. Mahaffy, M. Cabane, P. Coll, J. L. Campbell, S. K. Atreya, P. B. Niles, J. F. Bell III, D. L. Bish, W. B. Brinckerhoff, A. Buch, P. G. Conrad, D. J. Des Marais, B. L. Ehlmann, A. G. Fairén, K. Farley, G. J. Flesch, P. Francois, R. Gellert, J. A. Grant, J. P. Grotzinger, S. Gupta, K. E. Herkenhoff, J. A. Hurowitz, L. A. Leshin, K. W. Lewis, S. M. McLennan, K. E. Miller, J. Moersch, R. V. Morris, R. Navarro-González, A. A. Pavlov, G. M. Perrett, I. Pradler, S. W. Squyres, R. E. Summons, A. Steele, E. M. Stolper, D. Y. Sumner, C. Szopa, S. Teinturier, M. G. Trainer, A. H. Treiman, D. T. Vaniman, A. R. Vasavada, C. R. Webster, J. J. Wray, R. A. Yingst, and MSL Science Team, Volatile and organic compositions of sedimentary rocks in Yellowknife Bay, Gale Crater, Mars, *Science* 343, 1245267, 2014.
- 4657 Mortensen, D. R., G. T. Seidler, J. A. Bradley, M. J. Lipp, W. J. Evans, P. Chow, Y.-M. Xiao, G. Boman, and M. E. Bowden, A versatile medium-resolution x-ray emission spectrometer for diamond anvil cell applications, *Rev. Sci. Instrum.* 84, 083908, 2013.
- 4701 Musfeldt, J. L., T. V. Brinzari, J. A. Schlueter, J. L. Manson, A. P. Litvinchuk, and Z. Liu, Pressure-induced local lattice distortions in α -Co[N(CN)₂]₂, *Inorg. Chem.* 52, 14148-14154, 2013.

- 4677 Mysen, B., Effects of fluid and melt density and structure on high-pressure and high-temperature experimental studies of hydrogen isotope partitioning between coexisting melt and aqueous fluid, *Am. Mineral.* 98, 1754-1764, 2013.
- 4800 Mysen, B., An alternative to alteration and melting processes in the Earth: reaction between hydrogen (H₂) and oxide components in the Earth in space and time, *Am. Mineral.* 99, 1193-1194, 2014.
- 4817 Mysen, B., Water-melt interaction in hydrous magmatic systems at high temperature and pressure, *Prog. Earth Planet. Sci.* 1, 4, 2014.
- _____ Mysen, B. O., Solubility of volatiles, in *Encyclopedia of Glass Science. Technology, History and Culture*, Wiley-Interscience, in press.
- _____ Mysen, B. O., Structure of chemically complex silicate systems, in *Encyclopedia of Glass Science. Technology, History and Culture*, Wiley-Interscience, in press.
- 4709 Mysen, B. O., K. Mibe, I.-M. Chou, and W. A. Bassett, Structure and equilibria among silicate species in aqueous fluids in the upper mantle: experimental SiO₂-H₂O and MgO-SiO₂-H₂O data recorded in situ to 900°C and 5.4 GPa, *J. Geophys. Res. Solid Earth* 118, 6076-6085, doi:10.1002/2013JB010537, 2013.
- 4738 Mysen, B. O., T. Tomita, E. Ohtani, and A. Suzuki, Speciation of and D/H partitioning between fluids and melts in silicate-D-O-H-C-N systems determined in-situ at upper mantle temperatures, pressures, and redox conditions, *Am. Mineral.* 99, 578-588, 2014.
- 4703 Noffke, N., D. Christian, D. Wacey, and R. M. Hazen, Microbially induced sedimentary structures recording an ancient ecosystem in the ca. 3.48 billion-year-old Dresser Formation, Pilbara, Western Australia, *Astrobiology* 13, 1103-1124, 2013.
- 4826 O'Neal, K. R., T. V. Brinzari, J. B. Wright, C. Ma, S. Giri, J. A. Schlueter, Q. Wang, P. Jena, Z. Liu, and J. L. Musfeldt, Pressure-induced magnetic crossover driven by hydrogen bonding in CuF₂(H₂O)₂(3-chloropyridine), *Sci. Rep.* 4, 6054, 2014.
- _____ O'Neal, K., Z. Liu, J. Miller, R. Fishman, and J. Musfeldt, Pressure-driven high-to-low spin transition in the bimetallic quantum magnet [Ru₂(O₂CMe)₄]₃[Cr(CN)₆], *Phys. Rev. B*, in press.
- 4792 Pandey, K. K., J. Gyanchandani, M. Somayazulu, G. K. Dey, S. M. Sharma, and S. K. Sikka, Reinvestigation of high pressure polymorphism in hafnium metal, *J. Appl. Phys.* 115, 233513, 2014.
- _____ Pautler, B. G., C. A. Colla, R. L. Johnson, P. Klavins, S. J. Harley, C. A. Ohlin, D. A. Sverjensky, J. H. Walton, and W. H. Casey, A high-pressure NMR probe for aqueous geochemistry, *Angew. Chem. Int. Ed.*, in press.

- 4811 Pavlov, A. A., A. K. Pavlov, V. M. Ostryakov, G. I. Vasilyev, P. Mahaffy, and A. Steele, Alteration of the carbon and nitrogen isotopic composition in the Martian surface rocks due to cosmic ray exposure, *J. Geophys. Res. Planets* 119, 1390-1402, doi:10.1002/2014JE004615, 2014.
- 4744 Potter, R. G., M. Somayazulu, G. Cody, and R. J. Hemley, High pressure equilibria of dimethylamine borane, dihydridobis(dimethylamine)boron(III) tetrahydridoborate(III), and hydrogen, *J. Phys. Chem. C* 118, 7280-7287, 2014.
- 4756 Potter, R. G., M. Somayazulu, G. Cody, and R. J. Hemley, Raman spectroscopy, X-ray diffraction, and hydrogenation thermochemistry of *N,N,N,N*-tetramethylcyclotriborazane under pressure, *J. Phys. Chem. C* 118, 9871-9879, 2014.
- 4694 Pravica, M., D. Popov, S. Sinogeikin, D. Sneed, G. Guardala, and Q. Smith, X-ray induced mobility of molecular oxygen at extreme conditions, *Appl. Phys. Lett.* 103, 224103, 2013.
- 4653 Redding, J. E., R. L. Myers-Miller, D. M. Baker, M. Fogel, L. J. Raymundo, and K. Kim, Link between sewage-derived nitrogen pollution and coral disease severity in Guam, *Mar. Pollut. Bull.* 73, 57-63, 2013.
- 4716 Refsnider, K. A., G. H. Miller, M. L. Fogel, B. Fréchette, R. Bowden, J. T. Andrews, and G. L. Farmer, Subglacially precipitated carbonates record geochemical interactions and pollen preservation at the base of the Laurentide Ice Sheet on central Baffin Island, eastern Canadian Arctic, *Quat. Res.* 81, 94-105, 2014.
- 4663 Roskosz, M., M. A. Bouhifd, A. P. Jephcoat, B. Marty, and B. O. Mysen, Nitrogen solubility in molten metal and silicate at high pressure and temperature, *Geochim. Cosmochim. Acta* 121, 15-28, 2013.
- 4762 Rozsa, V. F., and T. A. Strobel, Triple guest occupancy and negative compressibility in hydrogen-loaded β -hydroquinone clathrate, *J. Phys. Chem. Lett.* 5, 1880-1884, 2014.
- 4736 Sakamaki, T., Y. Kono, Y. Wang, C. Park, T. Yu, Z. Jing, and G. Shen, Contrasting sound velocity and intermediate-range structural order between polymerized and depolymerized silicate glasses under pressure, *Earth Planet. Sci. Lett.* 391, 288-295, 2014.
- 4765 Sakamaki, T., Y. Wang, C. Park, T. Yu, and G. Shen, Contrasting behavior of intermediate-range order structures in jadeite glass and melt, *Phys. Earth Planet. Inter.* 228, 281-286, 2014.
- 4740 Saxena, S. K., and R. Hrubiak, Mapping the nebular condensates and the chemical composition of the terrestrial planets, *Earth Planet. Sci. Lett.* 393, 113-119, 2014.

- 4761 Schmandt, B., S. D. Jacobsen, T. W. Becker, Z. Liu, and K. G. Dueker, Dehydration melting at the top of the lower mantle, *Science* 344, 1265-1268, 2014.
- 4719 Seagle, C. T., E. Cottrell, Y. Fei, D. R. Hummer, and V. B. Prakapenka, Electrical and thermal transport properties of iron and iron-silicon alloy at high pressure, *Geophys. Res. Lett.* 40, 5377-5381, doi:10.1002/2013GL057930, 2013.
- Shahar, A., V. J. Hillgren, M. F. Horan, J. Mesa-Garcia, L. A. Kaufman, and T. D. Mock, Sulfur-controlled iron isotope fractionation experiments of core formation in planetary bodies, *Geochim. Cosmochim. Acta*, in press.
- 4658 She, Z., P. Strother, G. McMahon, L. R. Nittler, J. Wang, J. Zhang, L. Sang, C. Ma, and D. Papineau, Terminal Proterozoic cyanobacterial blooms and phosphogenesis documented by the Doushantuo granular phosphorites I: *In situ* micro-analysis of textures and composition, *Precambrian Res.* 235, 20-35, 2013.
- 4808 Shearer, C. K., Z. D. Sharp, P. V. Burger, F. M. McCubbin, P. P. Provencio, A. J. Brearley, and A. Steele, Chlorine distribution and its isotopic composition in "rusty rock" 66095. Implications for volatile element enrichments of "rusty rock" and lunar soils, origin of "rusty" alteration, and volatile element behavior on the Moon, *Geochim. Cosmochim. Acta* 139, 411-433, 2014.
- 4747 Shen, G., and Y. Wang, High-pressure apparatus integrated with synchrotron radiation, *Rev. Mineral. Geochem.* 78, 745-777, 2014.
- 4674 Shi, C. Y., L. Zhang, W. Yang, Y. Liu, J. Wang, Y. Meng, J. C. Andrews, and W. L. Mao, Formation of an interconnected network of iron melt at Earth's lower mantle conditions, *Nature Geosci.* 6, 971-975, 2013.
- 4698 Shi, L., X.-Q. Zhu, Y. Su, W.-Z. Weng, H. Feng, X.-D. Yi, Z.-X. Liu, and H.-L. Wan, Synergetic effect of VO_x and TeO_x species in mesoporous SiO₂ on selective oxidation of propane to acrolein, *J. Catal.* 307, 316-326, 2013.
- 4764 Shibazaki, Y., H. Terasaki, E. Ohtani, R. Tateyama, K. Nishida, K.-I. Funakoshi, and Y. Higo, High-pressure and high-temperature phase diagram for Fe_{0.9}Ni_{0.1}-H alloy, *Phys. Earth Planet. Inter.* 228, 192-201, 2014.
- Siljeström, S., C. Freissinet, F. Goesmann, H. Steininger, W. Goetz, A. Steele, H. Amundsen, and the AMASE 2011 team, Comparison of field and lab experiments on MOMA GCMS: results from the AMASE11 campaign, *Astrobiology*, in press.
- 4687 Smith, D., J. Scott, A. Steele, G. Cody, S. Ohara, and M. Fogel, Effects of metabolism and physiology on the production of okenone and bacteriochlorophyll *a* in purple sulfur bacteria, *Geomicrobiol. J.* 31, 128-137, 2014.

- 4771 Smith, H. L., B. C. Hornbuckle, L. Mauger, B. Fu, S. J. Tracy, G. B. Thompson, M. S. Lucas, Y. Xiao, M. Y. Hu, J. Zhao, E. E. Alp, and B. Fultz, Changes in vibrational entropy during the early stages of chemical unmixing in fcc Cu-6% Fe, *Acta Mater.* 61, 7466-7472, 2013.
- 4820 Stagno, V., L. Bindi, Y. Shibasaki, Y. Tange, Y. Higo, H. K. Mao, P. J. Steinhardt, and Y. Fei, Icosahedral AlCuFe quasicrystal at high pressure and temperature and its implications for the stability of icosahedrite, *Sci. Rep.* 4, 5869, 2014.
- 4727 Stagno, V., M. Mandal, W. Yang, C. Ji, Y. Fei, H. K. Mao, and K. Landskron, Synthesis of mesostructured stishovite from FDU-12/carbon composite, *Microporous Mesoporous Mater.* 187, 145-149, 2014.
- _____ Stagno, V., D. O. Ojwang, C. A. McCammon, and D. J. Frost, The oxidation state of the mantle and the extraction of carbon from Earth's interior, *Nature*, in press.
- 4665 Starke, V., J. Kirshtein, M. L. Fogel, and A. Steele, Microbial community composition and endolith colonization at an Arctic thermal spring are driven by calcite precipitation, *Environ. Microbiol. Rep.* 5, 648-659, 2013.
- _____ Starke, V., and A. Steele, Thresher: an improved algorithm for peak height thresholding of microbial community profiles, *Bioinformatics*, in press.
- 4705 Stern, J. C., D. I. Foustoukos, J. E. Sonke, and V. J. M. Salters, Humic acid complexation of Th, Hf and Zr in ligand competition experiments: metal loading and pH effects, *Chem. Geol.* 363, 241-249, 2014.
- 4797 Strobel, T. A., O. O. Kurakevych, D. Y. Kim, Y. Le Godec, W. Crichton, J. Guignard, N. Guignot, G. D. Cody, and A. R. Oganov, Synthesis of β -Mg₂C₃: a monoclinic high-pressure polymorph of magnesium sesquicarbide, *Inorg. Chem.* 53, 7020-7027, 2014.
- 4730 Sverjensky, D. A., B. Harrison, and D. Azzolini, Water in the deep Earth: the dielectric constant and the solubilities of quartz and corundum to 60 kb and 1200 °C, *Geochim. Cosmochim. Acta* 129, 125-145, 2014.
- 4743 Tang, L.-Y., Q. Tao, Z.-A. Xu, and X.-J. Chen, Pressure-induced phase coexistence in BaFe_{1.8}Co_{0.2}As₂, *J. Appl. Phys.* 115, 143904, 2014.
- _____ Tao, R., L. Zhang, Y. Fei, and Q. Liu, The effect of Fe on the stability of dolomite at high pressure: experimental study and petrological observation in eclogite from southwestern Tianshan, China, *Geochim. Cosmochim. Acta*, in press.
- 4676 Thomazo, C., and D. Papineau, Biogeochemical cycling of nitrogen on the early Earth, *Elements* 9, 345-351, 2013.

- 4749 Tracy, C. L., J. M. Pray, M. Lang, D. Popov, C. Park, C. Trautmann, and R. C. Ewing, Defect accumulation in ThO₂ irradiated with swift heavy ions, *Nucl. Instrum. Methods Phys. Res. B* 326, 169-173, 2014.
- 4786 Velisavljevic, N., S. Sinogeikin, R. Saavedra, R. S. Chellappa, A. Rothkirch, D. M. Dattelbaum, Z. Konopkova, H.-P. Liermann, M. Bishop, G. M. Tsoi, and Y. K. Vohra, Time-resolved x-ray diffraction and electrical resistance measurements of structural phase transitions in zirconium, *J. Phys.: Conf. Ser.* 500, 032020, 2014.
- Wang, L., Solvated fullerenes, a new class of carbon materials suitable for high-pressure studies: a review, *J. Phys. Chem. Solids*, in press.
- 4804 Wang, Q., B. Xu, J. Sun, H. Liu, Z. Zhao, D. Yu, C. Fan, and J. He, Direct band gap silicon allotropes, *J. Am. Chem. Soc.* 136, 9826-9829, 2014.
- 4758 Wang, S., A. F. Kemper, M. Baldini, M. C. Shapiro, S. C. Riggs, Z. Zhao, Z. Liu, T. P. Devereaux, T. H. Geballe, I. R. Fisher, and W. L. Mao, Bandgap closure and reopening in CsAu₃ at high pressure, *Phys. Rev. B* 89, 245109, 2014.
- 4812 Wang, S., X. Yu, J. Zhang, Y. Zhang, L. Wang, K. Leinenweber, H. Xu, D. Popov, C. Park, W. Yang, D. He, and Y. Zhao, Crystal structures, elastic properties, and hardness of high-pressure synthesized CrB₂ and CrB₄, *J. Superhard Mater.* 36, 279-287, 2014.
- 4729 Wang, S., J. Zhang, J. Yan, X.-J. Chen, V. Struzhkin, W. Tabis, N. Barišić, M. K. Chan, C. Dorow, X. Zhao, M. Greven, W. L. Mao, and T. Geballe, Strain derivatives of T_c in HgBa₂CuO_{4+δ}: the CuO₂ plane alone is not enough, *Phys. Rev. B* 89, 024515, 2014.
- 4721 Wang, Y., T. Sakamaki, L. B. Skinner, Z. Jing, T. Yu, Y. Kono, C. Park, G. Shen, M. L. Rivers, and S. R. Sutton, Atomistic insight into viscosity and density of silicate melts under pressure, *Nature Commun.* 5, 3241, 2014.
- Wani, R., and N. S. Gupta, Ammonoid taphonomy, in *Ammonoid Paleobiology*, in press.
- 4819 Wanner, C., E. L. Sonnenthal, and X.-M. Liu, Seawater $\delta^7\text{Li}$: a direct proxy for global CO₂ consumption by continental silicate weathering? *Chem. Geol.* 381, 154-167, 2014.
- 4708 Wong, M. H., S. K. Atreya, P. N. Mahaffy, H. B. Franz, C. Malespin, M. G. Trainer, J. C. Stern, P. G. Conrad, H. L. K. Manning, R. O. Pepin, R. H. Becker, C. P. McKay, T. C. Owen, R. Navarro-González, J. H. Jones, B. M. Jakosky, and A. Steele, Isotopes of nitrogen on Mars: atmospheric measurements by Curiosity's mass spectrometer, *Geophys. Res. Lett.* 40, 6033-6037, doi:10.1002/2013GL057840, 2013.

- 4713 Wu, J. J., J. F. Lin, X. C. Wang, Q. Q. Liu, J. L. Zhu, Y. M. Xiao, P. Chow, and C. Q. Jin, Magnetic and structural transitions of SrFe₂As₂ at high pressure and low temperature, *Sci. Rep.* *4*, 3685, 2014.
- 4671 Wu, J. J., J.-F. Lin, X. C. Wang, Q. Q. Liu, J. L. Zhu, Y. M. Xiao, P. Chow, and C. Jin, Pressure-decoupled magnetic and structural transitions of the parent compound of iron-based 122 superconductors BaFe₂As₂, *Proc. Natl. Acad. Sci. USA* *110*, 17263-17266, 2013.
- 4827 Wu, X., F. Ma, C. Ma, H. Cui, Z. Liu, H. Zhu, X. Wang, and Q. Cui, Pressure-driven variations of hydrogen bonding energy in ammonium azide (NH₄N₃): IR absorption and Raman scattering studies, *J. Chem. Phys.* *141*, 024703, 2014.
- Xi, X., X. He, F. Guan, W. Ku, Z. Liu, R. Zhong, J. Schneeloch, T. Liu, G. D. Gu, D. Xu, Z. Chen, X. Hong, and G. Carr, Universal bulk signatures of pressure-induced band inversion and topological phase transitions in Pb_{1-x}Sn_xSe, *Phys. Rev. Lett.*, in press.
- 4664 Xi, X., C. Ma, Z. Liu, Z. Chen, W. Ku, H. Berger, C. Martin, D. B. Tanner, and G. L. Carr, Signatures of a pressure-induced topological quantum phase transition in BiTeI, *Phys. Rev. Lett.* *111*, 155701, 2013.
- 4813 Yan, X., X. Ren, D. He, B. Chen, and W. Yang, Mechanical behaviors and phase transition of Ho₂O₃ nanocrystals under high pressure, *J. Appl. Phys.* *116*, 033507, 2014.
- 4825 Yang, H., L. Martinelli, F. Tasso, A. R. Sprocati, F. Pinzari, Z. Liu, R. T. Downs, and H. J. Sun, A new biogenic, struvite-related phosphate, the ammonium-analog of hazenite, (NH₄)NaMg₂(PO₄)₂·14H₂O, *Am. Mineral.* *99*, 1761-1765, 2014.
- 4814 Yang, W., High-pressure studies with microdiffraction, in *Strain and Dislocation Gradients from Diffraction*, R. Barabash and G. Ice, eds., pp. 438-450, Imperial College Press, London, 2014.
- 4735 Yang, W., F.-J. Jia, L.-Y. Tang, Q. Tao, Z.-A. Xu, and X.-J. Chen, Structural feature controlling superconductivity in compressed BaFe₂As₂, *J. Appl. Phys.* *115*, 083915, 2014.
- 4793 Ye, Y., C. Gu, S.-H. Shim, Y. Meng, and V. Prakapenka, The postspinel boundary in pyrolytic compositions determined in the laser-heated diamond anvil cell, *Geophys. Res. Lett.* *41*, 3833-3841, doi:10.1002/2014GL060060, 2014.
- 4668 Ye, Y., J. R. Smyth, S. D. Jacobsen, W. R. Panero, D. A. Brown, T. Katsura, Y.-Y. Chang, J. P. Townsend, P. Dera, S. Tkachev, C. Unterborn, Z. Liu, and C. Goujon, Crystal structure, Raman and FTIR spectroscopy, and equations of state of OH-bearing MgSiO₃ akimotoite, *Contrib. Mineral. Petrol.* *166*, 1375-1388, 2013.

- 4781 Zeng, Q., Y. Kono, Y. Lin, Z. Zeng, J. Wang, S. V. Sinogeikin, C. Park, Y. Meng, W. Yang, H. K. Mao, and W. L. Mao, Universal fractional noncubic power law for density of metallic glasses, *Phys. Rev. Lett.* *112*, 185502, 2014.
- 4733 Zha, C.-S., R. E. Cohen, H. K. Mao, and R. J. Hemley, Raman measurements of phase transitions in dense solid hydrogen and deuterium to 325 GPa, *Proc. Natl. Acad. Sci. USA* *111*, 4792-4797, 2014.
- 4755 Zhang, L., Y. Meng, W. Yang, L. Wang, W. L. Mao, Q.-S. Zeng, J. S. Jeong, A. J. Wagner, K. A. Mkhoyan, W. Liu, R. Xu, and H. K. Mao, Disproportionation of (Mg,Fe)SiO₃ perovskite in Earth's deep lower mantle, *Science* *344*, 877-882, 2014.
- 4707 Zhang, W., A. R. Oganov, A. F. Goncharov, Q. Zhu, S. E. Boulfelfel, A. O. Lyakhov, E. Stavrou, M. Somayazulu, V. B. Prakapenka, and Z. Konôpková, Unexpected stable stoichiometries of sodium chlorides, *Science* *342*, 1502-1505, 2013.
- 4731 Zhao, J., and L. Yang, Structure evolutions and metallic transitions in In₂Se₃ under high pressure, *J. Phys. Chem. C* *118*, 5445-5452, 2014.
- 4809 Zhao, X.-M., Q.-W. Huang, J. Zhang, G.-H. Zhong, H.-Q. Lin, and X.-J. Chen, High-pressure study of isoviolanthrone by Raman spectroscopy, *J. Chem. Phys.* *140*, 244314, 2014.
- 4670 Zhao, X.-M., J. Zhang, A. Berlie, Z.-X. Qin, Q.-W. Huang, S. Jiang, J.-B. Zhang, L.-Y. Tang, J. Liu, C. Zhang, G.-H. Zhong, H.-Q. Lin, and X.-J. Chen, Phase transformations and vibrational properties of coronene under pressure, *J. Chem. Phys.* *139*, 144308, 2013.
- Zhao, Z., C. Meng, P. Li, W. Zhu, Q. Wang, Y. Ma, S. Shen, L. Bai, H. He, D. Hei, D. Yu, J. He, B. Xu, and Y. Tian, Carbon coated face-centered cubic Ru-C nanoalloys, *Nanoscale*, in press.
- 4788 Zhao, Z., S. Wang, A. R. Oganov, P.-N. Chen, Z. Liu, and W. L. Mao, Tuning the crystal structure and electronic states of Ag₂Se: structural transitions and metallization under pressure, *Phys. Rev. B* *89*, 180102, 2014.
- 4789 Zhao, Z., S. Wang, T. F. Qi, Q. Zeng, S. Hirai, P. P. Kong, L. Li, C. Park, S. J. Yuan, C. Q. Jin, G. Cao, and W. L. Mao, Pressure induced second-order structural transition in Sr₃Ir₂O₇, *J. Phys.: Cond. Matter* *26*, 215402, 2014.
- Zhou, W., X.-J. Chen, J.-B. Zhang, X.-H. Li, Y.-Q. Wang, and A. F. Goncharov, Vibrational, electronic and structural properties of wurtzite GaAs nanowires under hydrostatic pressure, *Sci. Rep.*, in press.

Department of Global Ecology Publications 2013-14

Anderegg, William R. L., L. D. L. Anderegg, J. A. Berry, and C. B. Field, Loss of whole-tree hydraulic conductance during severe drought and multi-year forest die-off, *Oecologia* 175, 11-23. doi:10.1007/s00442-013-2875-5, 2014. [Jan]

Asner, G. P., A chemical-evolutionary basis for remote sensing of tropical forest density, D. A. Coomes, D. F. R. P Burslem, and W. D Simonson (eds), *Forests and Global Change*, British Ecological Society, Cambridge University Press, 2014. [Online Jun]

Asner, G. P., C. Anderson, R. E. Martin, D. E. Knapp, R. Tupayachi, T. Kennedy-Bowdoin, F. Sinca, and Y. Malhi, Landscape-scale changes in forest structure and functional traits along an Andes-to-Amazon elevation gradient, *Biogeosciences* 10, 15415-15454, doi:10.5194/bgd-10-15415-2013, 2013. [Final revised Feb 2014]

Asner, G.P., W. Llactayo, R. Tupayachi, and E.R. Luna, Elevated rates of gold mining in the Amazon revealed through high-resolution monitoring, *PNAS*, doi: 10.1073/pnas.1318271110, 2013.

Asner, G. P., R. E. Martin, L. Carranza-Jiménez, F. Sinca, R. Tupayachi, C. B. Anderson, and P. Martinez, Functional and biological diversity of foliar spectra in tree canopies throughout the Andes to Amazon region. *New Phytologist*, published online before print, doi:10.1111/nph.12895, 2014.

Asner, G. P., R. E. Martin, R. Tupayachi, C. B. Anderson, F. Sinca, L. Carranza-Jiménez, and P. Martinez, Amazonian functional diversity from forest canopy chemical assembly, *PNAS*, doi: 10.1073/pnas.1401181111, 2014.

Asner G. P., J. Mascaró, C. Anderson, D. E. Knapp, R. E. Martin, T. Kennedy-Bowdoin, M. van Breugel, S. Davies, J. S. Hall, H. C. Muller-Landau, C. Potvin, W. Sousa, J. Wright, and E. Bermingham, High-fidelity national carbon mapping for resource management and REDD+, *Carbon Balance and Management* 8, 7, doi:10.1186/1750-0680-8-7, 2013.

Baccini, A. and G. P. Asner, Improving pantropical forest carbon maps with airborne LiDAR sampling, *Carbon Management* 4, 567-569. doi: 10.4155/cmt.13.66, 2013.

Baldeck, C. A. and G. P. Asner, Improving remote species identification through efficient training data collection, *Remote Sens.* 6, 2682-2698, 2014

Baldeck, C. A., M. S. Colgan, J.-B. Féret, S. R. Levick, R. E. Martin, and G. P. Asner, Landscape-scale variation in plant community composition of an African savanna from airborne species mapping *Ecological Applications* 24, 84–93. doi:10.1890/13-0307.1, 2014.

Bala, G., N. Devaraju, R. K. Chaturvedi, K. Caldeira, and R. Nemani, Nitrogen deposition: how important is it for global terrestrial carbon uptake?, *Biogeosciences* 10, 7147-7160, doi:10.5194/bgd-10-11077-2013, 2013.

Brando, P. M., J. K. Balch, D. C. Nepstad, D. C. Morton, F. E. Putz, M. T. Coe, D. Silvério, M. N. Macedo, E. A. Davidson, C. C. Nóbrega, A. Alencar, and B. S. Soares-Filho, Abrupt Increases in Amazonian Tree Mortality Due to Drought–Fire Interactions, *PNAS*, doi:10.1073/pnas.1305499111, 2014.

- Broadbent, E. M., A. M. Almeyda Zambrano, G. P. Asner, C. B. Field, B. E. Rosenheim, T. Kennedy-Bowdoin, D. E. Knapp, D. Burke, C. Giardina, and S. Cordell, Linking rainforest ecophysiology and microclimate through fusion of airborne LiDAR and hyperspectral imagery, *Ecosphere* 5, art57, doi:10.1890/ES13-00255.1, 2014.
- Bryan, J. E., P. L. Sherman, G. P. Asner, D. E. Knapp, G. Aoro, and B. Lokes, Extreme differences in forest degradation in Borneo: comparing practices in Sarawak, Sabah, and Brunei, *PLoS ONE* 8, e69679, doi:10.1371/journal.pone.0069679, 2013.
- Caldeira, K. and N. P. Myhrvold, Projections of the pace of warming following an abrupt increase in atmospheric carbon dioxide concentration, *Environmental Research Letters*, 8, 034039, doi:10.1088/1748-9326/8/3/034039, 2013.
- Caldeira, K., and K.L. Ricke, Prudence on solar climate engineering, *Nature Climate Change*, 3, 941, doi:10.1038/nclimate2036, 2013.
- Chadwick, O. A., J. J. Roering, A. M. Heimsath, S. R. Levick, G. P. Asner, and L. Khomo, Shaping post-orogenic landscapes by climate and chemical weathering, *Geology*, 41, 1171-1174, doi:10.1130/G34721.1, 2013.
- Chatterjee, A., R. J. Engelen, S. R. Kawa, C. Sweeney, and A. M. Michalak, Background error covariance estimation for atmospheric CO₂ data assimilation, *J. Geophys. Res.*, 118, 140-10,154, doi:10.1002/jgrd.50654, 2013.
- Ciais, P., T. Gasser, J. Paris, K. Caldeira, M.R. Raupach, J.G. Canadell, A. Patwardham, P. Friedlingstein, S.L. Piao, and V. Bitz, Attributing the increase in atmospheric CO₂ to emitters and absorbers, *Nature Climate Change*, 3, 926–930, doi:10.1038/nclimate1942, 2013.
- Colgan M. S. and G. P. Asner, Coexistence and environmental filtering of species-specific biomass in an African savanna, *Ecology* 1579, doi:10.1890/13-1160.1, 2014.
- Colgan, M. S., G. P. Asner, and T. Swemmer, Harvesting tree biomass at the stand level to assess the accuracy of field and airborne biomass estimation in savannas, *Ecological Applications*, 23, 1170-1184, doi:10.1890/12-0922.1, 2013.
- Colgan, M. S., T. Swemmer, and G. P. Asner, Structural relationships between form factor, wood density, and biomass in African savanna woodlands, *Trees*, doi:10.1007/s00468-013-0932-7, 2013.
- Da Silva Couto, M. S. D., O. P. Smith, L. Guimarães Ferreira, F. Nogueira Garcia, L. E. Fernandez, and C. B. Field, Identificação De Cenários Alternativos Para as Áreas De Pastagens Cultivadas No Estado De Goiás a Partir De Um Modelo De Programação Linear (Identification of Alternative Scenarios for the Pasture Areas in the State of Goiás Based on a Linear Mathematical Model), *Revista Brasileira de Cartografia*, 65, 6, 1199-1210, 2013.
- Davies, A. B., S. R. Levick, G. P. Asner, M. P. Robertson, B. J. van Rensburg, C. L. Parr, Spatial variability and abiotic determinants of termite mounds throughout a savanna catchment. *Ecography*, doi: 10.1111/ecog.00532, 2014.
- Davies, A. B., M. P. Robertson, S. R. Levick, G. P. Asner, B. J. van Rensburg, and C. L. Parr, Variable effects of termite mounds on African savanna grass communities across a rainfall gradient, *J. Vegetation Sci.*, doi: 10.1111/jvs.12200, 2014.

Diffenbaugh, N. S. and C. B. Field, Changes in ecologically critical terrestrial climate conditions. *Science* 2, 341, 486-492, doi:10.1126/science.1237123, 2013.

Fernandez, D. P., J. C. Neff, C. Huang, G. P. Asner, and N. N. Barger, Twentieth century carbon stock changes related to Pinon-Juniper expansion into a black sagebrush community, *Carbon Balance Management* 8, 8, doi:190.1186/1750-0680-8-8, 2013.

Funk, J. M., C. B. Field, S. Kerr, and A. Daigneault, Modeling the Impact of Carbon Farming on Land Use in a New Zealand Landscape, *Environmental Science & Policy*, 37, doi:10.1016/j.envsci.2013.08.008, 2014.

Guanter, L., Y. Zhang, M. Jung, J. Joiner, M. Voigt, J. A. Berry, C. Frankenberg, A. R. Huete, P. Zarco-Tejada, J.-E. Lee, M. S. Moran, G. Ponce-Campos, C. Beer, G. Camps-Valls, N. Buchmann, D. Gianelle, K. Klumpp, A. Cescatti, J. M. Baker, and T. J. Griffis, Global and time-resolved monitoring of crop photosynthesis with chlorophyll fluorescence, *PNAS*, doi:10.1073/pnas.1320008111, 2014.

Hahn, M. B., R. E. Gangnon, C. Barcellos, G. P. Asner, and J. A. Patz, Influence of deforestation, logging, and fire on malaria in the Brazilian Amazon, *PLoS ONE* 9, 1, doi: 10.1371/journal.pone.0085725, 2014.

Hernandez, R. R. and M. F. Allen, Diurnal patterns of productivity of arbuscular mycorrhizal fungi revealed with the Soil Ecosystem Observatory, *New Phytologist* 200, 547–557, doi:10.1111/nph.12393, 2013.

Hernandez, R. R., S. B. Easter, M.L. Murphy-Mariscal, F.T. Maestre, M. Tavassoli, M.; E.B. Allen, C.W. Barrows, J. Belnap, R. Ochoa-Hueso, S. Ravi, and M.F. Allen, Environmental impacts of utility-scale solar energy, *Renewable and Sustainable Energy Reviews* 29, 749-766, 2014.

Hernandez, R. R., M. K. Hoffacker, and C. B. Field, Land-use efficiency of big solar, *Environ. Sci. Technol.* 28, 1315-1323, doi: 10.1021/es4043726, 2013.

Higgins, M. A., G. P. Asner, E. Perez, N. Elespuru, and A. Alonso, Variation in Photosynthetic and Nonphotosynthetic Vegetation Along Edaphic and Compositional Gradients in Northwestern Amazonia, *Biogeosciences Discuss.*, 11, 3535-3557, doi:10.5194/bg-11-3505-2014, 2014.

Higgins, M. A., G. P. Asner, R. E. Martin, D. E. Knapp, C. Anderson, T. Kennedy-Bowdoin, R. Saenz, A. Aguilar, and S. J. Wright, Linking imaging spectroscopy and LiDAR with floristic composition and forest structure in Panama, *Rem. Sens. Environ.*, doi:10.1016/j.rse.2013.09.032, 2014.

Hughes, R. F. , G. P. Asner, J. Mascaro, A. Uowolo, and J. Baldwin, Carbon storage landscapes of lowland Hawaii: the role of native and invasive species through space and time, *Ecological Applications* 24, :716–731, <http://dx.doi.org/10.1890/12-2253.1>, 2014.

Huntzinger, D. N., Schwalm, C., Michalak, A. M., Schaefer, K., King, A. W., Wei, Y., Jacobson, A., Liu, S., Cook, R. B., Post, W. M., Berthier, G., Hayes, D., Huang, M., Ito, A., Lei, H., Lu, C., Mao, J., Peng, C. H., Peng, S., Poulter, B., Riccuto, D., Shi, X., Tian, H., Wang, W., Zeng, N., Zhao, F., and Zhu, Q. 2013. The North American Carbon Program Multi-Scale Synthesis and Terrestrial Model Intercomparison Project – Part 1: Overview and experimental design, *Geosci. Model Dev.*, 6, 2121-2133, doi:10.5194/gmd-6-2121-2013, 2013.

Kellner, R. J. and G. P. Asner, Winners and losers in the competition for space in tropical forest canopies, *Ecology Letters*, doi:10.1111/ele.12256, 2014.

Kravitz, B., K. Caldeira, O. Boucher, A. Robock, P.J. Rasch, K. Alterskjaer, D. Bou Karam, J.N.S. Cole, C. L. Curry, J.M. Haywood, P.J. Irvine, D. Ji, A. Jones, J.E. Kristjansson, D.J. Lunt, J.C. Moore, U. Niemeier, H. Schmidt, M. Schulz, B. Singh, S. Tilmes, S. Watanabwe, S. Yang, J.-H. Yoon, Climate model response from the Geoengineering Model Intercomparison Project (GeoMIP), *J. Geophys. Res. Atmos.*, *118*, 8320–8332, doi:10.1002/jgrd.50646, 2013.

Levick, S. R., C. A. Baldeck, and G. P. Asner, Demographic Legacies of Fire History in an African Savanna, *Functional Ecology*, doi:10.1111/1365-2435.12306, 2014.

Mackey, K. R. M., A. Paytan, K. Calderia, A. R. Grossman, D. Moran, M. McIlvin, and M. A. Saito, Effect of Temperature on Photosynthesis and Growth in Marine *Synechococcus* spp, *Plant Physiology* *163*, 815-829, doi:10.1104/pp.113.221937, 2013.

Mascaro J, G. P. Asner, D. E. Knapp, T. Kennedy-Bowdoin, R. E. Martin, C. Anderson, M. Higgins, and K. D. Chadwick, A Tale of Two “Forests”: Random Forest Machine Learning Aids Tropical Forest Carbon Mapping, *PLoS ONE* *9*, e85993, doi:10.1371/journal.pone.0085993, 2014.

Maseyk, K., J. A. Berry, D. Billesbach, J. E. Campbell, M. S. Torn, M. Zahniser, and U. Seibt, Sources and sinks of carbonyl sulfide in an agricultural field in the southern Great Plains. *PNAS*, published online before print, doi: 10.1073/pnas.1319132111, 2014.

McGlinchy, J., J. A. N. van Aardt, B. Erasmus, G. P. Asner, R. Mathieu, K. Wessels, D. Knapp, T. Kennedy-Bowdoin, H. Rhody, J. P. Kerekes, E. J. Lentilucci, J. Wu, D. Sarrazin, and K. Cawse-Nicholson, Extracting structural vegetation components from small-footprint waveform LiDAR for biomass estimation in savanna ecosystems, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *7*, 480-90, doi:10.1109/JSTARS.2013.2274761, 2014.

Metcalfe, D. B., G. P. Asner, R. E. Martin, J. E. Silva Elspejo, W. H. Huaraca Huasco, F. F. Farfan Amezcua, L. Carranza-Jiminez, D. F. Galiano Cabrera, L. Durand Baca, F. Sinca, L. P. Huaraca Quispe, I. Alzamora Taype, L. Eguiluz Mora, A. Rozas Davila, M. Mamani Solorzano, B. L. Puma Vilca, J. M. Laupa Roman, P. C. Guerra Bustios, N. Salinas Revilla, R. Tupiyachi, C. A. J. Girardin, C. E. Doughty, and Y. Malhi, Herbivory makes major contributions to ecosystem carbon and nutrient cycling in tropical forests, *Ecology Letters*, *17*, 324-332, doi:10.1111/ele.12233, 2013.

Milbrandt, A. R., D. M. Heimiller, A. D. Perry, and C. B. Field, Renewable Energy Potential on Marginal Lands in the United States, *Renewable and Sustainable Energy Reviews*, *29*, 473-481, doi:10.1016/j.rser.2013.08.079, 2014.

Miller, S. M., A. M. Michalak, and P. J. Levi, Atmospheric inverse modeling with known physical bounds: an example from trace gas emissions, *Geosci. Model Dev.*, *7*, 303-315, doi:10.5194/gmd-7-303-2014, 2014.

Miller, S. M., A. M. Michalak, and S. C. Wofsy, Reply to Dristov et al.: Linking methane emissions inventories with atmospheric observations, *PNAS* *111*, doi: 10.1073/pnas.1401703111. 2014, 2014.

Miller, S. M., S. C. Wofsy, A. M. Michalak, E. A. Kort, A. E. Andrews, S. C. Biraud, E. J. Dlugokencky, J. Eluszkiewicz, M. L. Fischer, G. Janssens-Maenhout, B. R. Miller, J. B. Miller, S. A. Montzka, T. Nehrkorn, and C. Sweeney, 2013, Anthropogenic emissions of methane in the United States, *PNAS* *110*, 6237-6242, doi: 10.1073/pnas.1314392110, 2013.

Miller, S. M., D. E. J. Worthy, A. M. Michalak, S. C. Wofsy, E. A. Kort, T. C. Havice, A. E. Andrews, D. J. Dlugokencky, J. O. Kaplan, P. J. Levi, H. Tian, and B. Zhang, Observational constraints on the

distribution, seasonality, and environmental predictors of North American boreal methane emissions, *Global Biogeochem. Cycles*, *28*, 146–160, doi:10.1002/2013GB004580, 2014.

Mitchard, E. T. A., S. S. Saatchi, A. Baccini, G. P. Asner, S. J. Goetz, N. L. Harris, and S. Brown, Uncertainty in the spatial distribution of tropical forest biomass: a comparison of pan-tropical maps. *Carbon Balance and Management*, *8*, doi:10.1186/1750-0680-8-10, 2013.

Montanari, A., G. Blöschl, X. Cai, D. S. Mackay, A. M. Michalak, H. Rajaram, and G. Sander, Editorial: Toward 50 years of Water Resources Research, *Water Resources Res.*, *49*, 7841–7842, doi:10.1002/2013WR014986, 2013.

Nepstad, D., D. McGrath, C. Stickler, A. Alencar, A. Azevedo, B. Swette, T. Bezerra, M. DiGiano, J. Shimada, R. Seroa da Motta, E. Armijo, L. Castello, P. Brando, M. C. Hansen, M. McGrath-Horn, O. Carvalho, and L. Hess, Slowing Amazon Deforestation through Public Policy and Interventions in Beef and Soy Supply Chains, *Science*, *344*, 1118-1123, 2014.

Obenour, D. R., D. Scavia, N. N. Rabalais, R. E. Turner, and A. M. Michalak, Retrospective analysis of midsummer hypoxic area and volume in the northern Gulf of Mexico, 1985-2011, *Environ. Sci. Tech.*, *47*, 9808–9811, doi:10.1021/es400983g, 2013.

Questad, E. J., J. R. Kellner, K. Kinney, S. Cordell, G. P. Asner, J. Thaxton, J. Diep, A. Uowolo, S. Brooks, N. Inman-Narahari, S. A. Evans, and B. Tucker, Mapping habitat suitability for at-risk plant species and its implications for restoration and reintroduction, *Ecological Applications*, *24*, 385-395, doi:10.1890/13-0775.1, 2014.

Ravi, S., D. B. Lobell, and C. B. Field, Tradeoffs and Synergies between Biofuel Production and Large Solar Infrastructure in Deserts, *Environmental Science & Technology*, *48*, 3021-3030, doi:10.1021/es404950n, 2014.

Ricke, K. L. and K. Caldeira, Natural climate variability and future climate policy, *Nature Climate Change* *4*, 333-338, doi:10.1038/nclimate2186, 2014.

Ricke, K. L., J. C. Orr, K. Schneider, and K. Caldeira, Risks to coral reefs from ocean carbonate chemistry changes in recent earth system model projections, *Environ. Res. Lett.*, *8*, 034003, doi:10.1088/1748-9326/8/3/034003, 2013.

Scavia, D., J. D. Allan, K. K. Arend, S. Bartell, D. Beletsky, N. S. Bosch, S. B. Brandt, R. D. Briland, I. Daloğlu, J. V. DePinto, D. M. Dolan, M. A. Evans, T. M. Farmer, D. Goto, H. Han, T. O. Höök, R. Knight, S. A. Ludsin, D. Mason, A. M. Michalak, R. P. Richards, J. J. Roberts, D. K. Rucinski, E. Rutherford, D. J. Schwab, T. M. Sesterhenn, H. Zhang, and Y. Zhou, Assessing and addressing the re-eutrophication of Lake Erie: central basin hypoxia. *Journal of Great Lakes Research* *40*, 226-246, doi: 10.1016/j.jglr.2014.02.004, 2014.

Schwalm, C. R., D. N. Huntzger, A. M. Michalak, J. B. Fisher, J. S. Kimball, B. Mueller, K. Zhang, and Y. Zhang, Sensitivity of inferred climate model skill to evaluation decisions: a case study using CMIP5 evapotranspiration, *Environ. Res. Lett.*, *8*, 024028, doi:10.1088/1748-9326/8/2/024028, 2013.

Schneider, K., J. Silverman, B. Kravitz, T. Rivlin, A. Schneider-Mor, S. Barbosa, M. Byrne, and K. Calderia, Inorganic carbon turnover caused by digestion of carbonate sands and metabolic activity of holothurians, *Estuarine, Coastal and Shelf Science*, *133*, 217-233, doi:10.1016/j.ecss.2013.08.029, 2013.

Selmants, P. C., C. M. Litton, C. P. Giardina, and G. P. Asner, Ecosystem Carbon Storage Does Not Vary with Mean Annual Temperature in Hawaiian Tropical Montane Wet Forests, *Global Change Biology*, doi:10.1111/gcb.12636, 2014.

Shiga, Y. P., A. M. Michalak, S. M. Gourdjji, K. L. Mueller, and V. Yadav, Detecting Fossil Fuel Emissions Patterns from Subcontinental Regions Using North American in Situ CO₂ Measurements, *Geophysical Research Letters*, 41, 4381-4388, doi:10.1002/2014GL059684, 2014.

Somers, B. and G. P. Asner, Tree species mapping in tropical forests using multi-temporal imaging spectroscopy: wavelength adaptive spectral mixture analysis, *IJAEOG*, 31, 57-66, doi:10.1117/12.2028508, 2014.

Tweiten, M. A., S. C. Hotchkiss, P. M. Vitousek, J. R. Kellner, O. A. Chadwick, and G. P. Asner, Resilience against Exotic Species Invasion in a Tropical Montane Forest, *Journal of Vegetation Science*, 25, 734-749, doi:10.1111/jvs.12112, 2014.

Vaughn, N. R., G. P. Asner, and C. P. Giardina, Polar grid fraction as an estimator of montane tropical forest canopy structure using airborne lidar, *Intl. Jour. of Remote Sens.*, 34., 7464-7473, doi:10.1080/2150704X.2013.820003, 2013.

Zhou, Y., D. Scavia, and A. M. Michalak, Nutrient loading and meteorological conditions explain interannual variability of hypoxia in Chesapeake Bay, *Limnol. Oceanogr*, 59, 373-384, doi:10.4319/lo.2014.59.2.0373, 2014.

Zscheischler, J., A. M. Michalak, C. Schwalm, M. D. Mahecha, D. N. Huntzinger, M. Reichstein, G. Berthier, P. Ciais, R. B. Cook, B. El-Masri, M. Huang, A. Ito, A. Jain, A. King, H. Lei, C. Lu, J. Mao, S. Peng, B. Poulter, D. Ricciuto, X. Shi, B. Tao, H. Tian, N. Viovy, W. Wang, Y. Wei, J. Yang, and N. Zeng, Impact of large-scale climate extremes on biospheric carbon fluxes: an intercomparison based on MsTMIP data. *Global Biogeochem. Cycles*, Published online before print, doi:10.1002/2014GB004826, 2014.

Observatories Bibliography for 7/1/13 – 6/30/14

Aasi, J., J. Abadie, B. P. Abbott, R. Abbott, M. M. Kasliwal, et al., First searches for optical counterparts to gravitational-wave candidate events, *Astrophys. J. Suppl. Ser.* 211, 7, 2014.

Abramson, L. E., A. Dressler, M. D. Gladders, A. Oemler, Jr., B. M. Poggianti, A. Monson, E. Persson, and B. Vulcani, The IMACS Cluster Building Survey. V. Further evidence for starburst recycling from quantitative galaxy morphologies, *Astrophys. J.* 777, 124, 2013.

Abramson, L. E., D. D. Kelson, A. Dressler, B. Poggianti, M. D. Gladders, A. Oemler, Jr., and B. Vulcani, The mass-independence of specific star formation rates in galactic disks, *Astrophys. J. Lett.* 785, L36, 2014.

Adams, J. J., J. D. Simon, et al., Dusty OB stars in the Small Magellanic Cloud. II. Extragalactic disks or examples of the Pleiades Phenomenon? *Astrophys. J.* 771, 112, 2013.

Aliu, E., S. Archambault, T. Arlen, T. Aune, M. Fumagalli et al., Long term observations of B2 1215+30 with VERITAS, *Astrophys. J.* 779, 92, 2013.

Amanullah, R., A. Goobar, J. Johnansson, D. Banerjee, M. M. Kasliwal, et al., The peculiar extinction law of SN 2014J measured with the *Hubble Space Telescope*, *Astrophys. J. Lett.* 788, L21, 2014.

Anderson, J. P., L. Dessart, C. P. Gutierrez, M. Hamuy, N. I. Morrell, M. Phillips, G. Folatelli, M. D. Stritzinger, W. L. Freedman, S. González-Gaitán, P. McCarthy, N. Suntzeff, and J. Thomas-Osip, Analysis of blueshifted emission peaks in type II supernovae, *Mon. Not. Roy. Astron. Soc.* 441, 671, 2014.

Anderson, J. P., S. González-Gaitán, M. Hamuy, C. P. Gutiérrez, M. D. Stritzinger, F. Olivares E., M. Phillips, S. Schulze, R. Antezana, L. Bolt, A. Campillay, S. Castellón, C. Contreras, T. De Jaeger, G. Folatelli, F. Förster, W. L. Freedman, L. González, E. Hsiao, P. McCarthy, N. I. Morrell, S. E. Persson, M. Roth, F. Salgado, N. B. Suntzeff, and J. Thomas-Osip, Characterizing the V-band light-curves of hydrogen-rich type II supernovae, *Astrophys. J.* 786, 67, 2014.

Andersson, B.-G., V. Piirola, J. De Buizer, D. P. Clemens, A. Uomoto, et al., Evidence for H₂ formation driven dust grain alignment in IC 63, *Astrophys. J.* 775, 84, 2013.

Aravena, M., E. J. Murphy, et al., Large gas reservoirs and free-free emission in two lensed star-forming galaxies at $z = 2.7$, *Mon. Not. Roy. Astron. Soc.* 433, 498, 2013.

Arriagada, P., G. Anglada-Escudé, P. R. Butler, J. D. Crane, S. A. Shectman, I. Thompson, S. Wende, and D. Minniti, Two planetary companions around the K7 dwarf GJ 221: a hot super-Earth and a candidate in the sub-Saturn desert range, *Astrophys. J.* 771, 42, 2013.

Ashby, M. L. N., S. A. Stanford, M. Brodwin, A. H. Gonzalez, A. Dressler, et al., The *Spitzer* South Pole Telescope Deep Field: survey design and infrared array camera catalogs, *Astrophys. J. Suppl. Ser.* 209, 22, 2013.

Balestra, I., E. Vanzella, P. Rosati, A. Monna, D. Kelson, et al., CLASH-VLT: spectroscopic confirmation of a $z = 6.11$ quintuply lensed galaxy in the Frontier Fields cluster RXC J2248.7-4431, *Astron. Astrophys.* 559, L9, 2013.

Banerjee, D. P. K., V. Joshi, V. Venkataraman, N. M. Ashok, G. H. Marion, E. Y. Hsiao, and A. Raj, Near-IR studies of recurrent nova V745 Scorpii during its 2014 outburst, *Astrophys. J. Lett.* 785, L11, 2014.

Bastian, N., H. Lamers, S. E. de Mink, et al., Early disc accretion as the origin of abundance anomalies in globular clusters, *Mon. Not. Roy. Astron. Soc.* 436, 2398, 2013.

Bedregal, A. G., C. Scarlata, A. L. Henry, H. Atek, A. Dressler, C. Bridge, N. P. Hathi, D. Masters, P. J. McCarthy, and M. J. Rutkowski, *HST*/WFC3 near-infrared spectroscopy of quenched galaxies at $z \sim 1.5$ from the WISP Survey: stellar population properties, *Astrophys. J.* 778, 126, 2013.

Belli, S., A. B. Newman, and R. S. Ellis, Velocity dispersions and dynamical masses for a large sample of quiescent galaxies at $z > 1$: improved measures of the growth in mass and size, *Astrophys. J.* 783, 117, 2014.

Belli, S., A. B. Newman, R. S. Ellis, and N. P. Konidaris, MOSFIRE absorption line spectroscopy of $z > 2$ quiescent galaxies: probing a period of rapid size growth, *Astrophys. J. Lett.* 788, L29, 2014.

Ben-Ami, S., A. Gal-Yam, P. A. Mazzali, O. Gnat, M. M. Kasliwal, et al., SN 2010mb: direct evidence for a supernova interacting with a large amount of hydrogen-free circumstellar material, *Astrophys. J.* 785, 37, 2014.

Bernstein, R. A. and S. A. Sackett, Astronomical spectrographs, in *Planets, Stars and Stellar Systems: Vol. 1: Telescopes and Instrumentation*, T. D. Oswalt and I. S. McLean, eds, p. 587, Springer, Dordrecht, 2013.

Biviano, A., P. Rosati, I. Balestra, A. Mercurio, D. Kelson, et al., CLASH-VLT: The mass, velocity-anisotropy, and pseudo-phase-space density profiles of the $z = 0.44$ galaxy cluster MACS J1206.2-0847, *Astron. Astrophys.* 558, A1, 2013.

Blanc, G. A., The Mitchell Spectrograph: studying nearby galaxies with the VIRUS prototype, *Adv. Astron.* 2013, 1, 2013.

Boldt, L. N., M. D. Stritzinger, C. Burns, E. Hsiao, M. M. Phillips, et al., Near-infrared K corrections of Type Ia supernovae and their errors, *Pub. Astron. Soc. Pac.* 126, 324, 2014.

- Boss, A. P., A. J. Weinberger, G. Anglada-Escudé, I. B. Thompson, and R. Braham, Habitable worlds around M dwarf stars: the CAPSCam Astrometric Planet Search, in *Formation, Detection, and Characterization of Extrasolar Habitable Planets*, IAU Symp. 293, N. Haghighipour, ed., p. 183, Cambridge University Press, Cambridge, 2014.
- Bothwell, M. S., J. E. Aguirre, S. C. Chapman, D. P. Marrone, E. J. Murphy, et al., SPT 0538-50: physical conditions in the interstellar medium of a strongly lensed dusty star-forming galaxy at $z = 2.8$, *Astrophys. J.* 779, 67, 2013.
- Breysse, P. C., M. Kamionkowski, and A. Benson, Oscillations and stability of polytropic filaments, *Mon. Not. Roy. Astron. Soc.* 437, 2675, 2014.
- Brightman, M., J. D. Silverman, V. Mainieri, Y. Ueda, L. C. Ho, D. Masters, et al., A statistical relation between the X-ray spectral index and Eddington ratio of active galactic nuclei in deep surveys, *Mon. Not. Roy. Astron. Soc.* 433, 2485, 2013.
- Britavskiy, N. E., A. Z. Bonanos, A. Mehner, D. García-Álvarez, J. L. Prieto, and N. I. Morrell, Identification of red supergiants in nearby galaxies with mid-IR photometry, *Astron. Astrophys.* 562, A75, 2014.
- Bufano, F., G. Pignata, M. Bersten, P. A. Mazzali, C. Contreras, T. de Jaeger, F. Förster, C. Gutierrez, M. Hamuy, E. Hsiao, N. Morrell, M. M. Phillips, et al., SN 2011hs: a faint and fast Type IIb supernova from a supergiant progenitor, *Mon. Not. Roy. Astron. Soc.* 439, 1807, 2014.
- Burgasser, A. J., J. Faherty, Y. Beletsky, P. Plavchan, N. Morrell, et al., Luhman 16AB: a remarkable, variable L/T transition binary 2 pc from the Sun, *Mem. Soc. Astron. Italiana* 84, 1017, 2013.
- Cao, Y., M. M. Kasliwal, et al., Discovery, progenitor and early evolution of a stripped envelope supernova iPTF13bvn, *Astrophys. J. Lett.* 775, L7, 2013.
- Cassata, P., M. Giavalisco, C. C. Williams, Y. Guo, N. P. Hathi, et al., Constraining the assembly of normal and compact passively evolving galaxies from redshift $z = 3$ to the present with CANDELS, *Astrophys. J.* 775, 106, 2013.
- Chadid, M. and G. W. Preston, Atmospheric dynamics in RR Lyrae stars: a high-resolution spectroscopic survey, *Mon. Not. Roy. Astron. Soc.* 434, 552, 2013.
- Chadid, M. and G. W. Preston, Hydrodynamic cycles in RR Lyrae stars, in *New Advances in Stellar Physics: From Microscopic to Macroscopic Processes*, EAS Pub. Series 63, G. Alecian et al., eds., p. 47, Cambridge University Press, Cambridge, UK.
- Chang, Y.-Y., A. van der Wel, H.-W. Rix, B. Holden, N. P. Hathi, et al., Structural evolution of early-type galaxies to $z = 2.5$ in CANDELS, *Astrophys. J.* 773, 149, 2013.

- Chiang, C.-T., P. Wullstein, D. Jeong, E. Komatsu, G. A. Blanc, et al., Galaxy redshift surveys with sparse sampling, *J. Cosmol. Astropart. Phys.* 12, 030, 2013.
- Chonis, T. S., G. A. Blanc, G. J. Hill, J. J. Adams, S. L. Finkelstein, K. Gephardt, J. A. Kollmeier, et al., The spectrally resolved Ly α emission of three Ly α -selected field galaxies at $z \sim 2.4$ from the HETDEX Pilot Survey, *Astrophys. J.* 775, 99, 2013.
- Cisternas, M., D. A. Gadotti, J. H. Knapen, T. Kim, S. Díaz-García, E. Laurikainen, H. Salo, O. González-Martin, L. C. Ho, M. Seibert, et al., X-ray nuclear activity in S⁴G barred galaxies: no link between bar strength and co-occurrent supermassive black hole fueling, *Astrophys. J.* 776, 50, 2013.
- Close, L. M., J. R. Males, K. Morzinski, D. Kopon, A. Uomoto, T. Hare, et al., Diffraction-limited visible light images of Orion Trapezium Cluster with the Magellan Adaptive Secondary Adaptive Optics System (MagAO), *Astrophys. J.* 774, 94, 2013.
- Cohen, J. G., N. Christlieb, I. Thompson, A. McWilliam, S. Smetman, et al., Normal and outlying populations of the Milky Way stellar halo at $[\text{Fe}/\text{H}] < -2$, *Astrophys. J.* 778, 56, 2013.
- Colbert, J. W., H. Teplitz, H. Atek, A. Bunker, A. Dressler, A. Henry, M. Malkan, C.L. Martin, D. Masters, P. McCarthy, and B. Siana, Predicting future space near-IR grism surveys using the WFC3 Infrared Spectroscopic Parallels Survey, *Astrophys. J.* 779, 34, 2013.
- Colucci, J. E., R. A. Bernstein, A. McWilliam, and J. G. Cohen, Extragalactic globular cluster populations from high resolution integrated light spectra, *Mem. Soc. Astron. Italiana* 84, 50, 2013.
- Colucci, J. E., M. F. Durán, R. A. Bernstein, and A. McWilliam, Chemical abundance evidence of enduring high star formation rates in an early-type galaxy: high $[\text{Ca}/\text{Fe}]$ in NGC 5128 globular clusters, *Astrophys. J. Lett.* 773, L36, 2013.
- Comerón, S., H. Salo, E. Laurikainen, J. H. Knapen, M. Seibert, L. C. Ho, et al., ARRAKIS: atlas of resonance rings as known in the S⁴G, *Astron. Astrophys.* 562, A121, 2014.
- Corsi, A., E. O. Ofek, A. Gal-Yam, D. A. Frail, S. R. Kulkarni, D. B. Fox, M. M. Kasliwal, et al., A multi-wavelength investigation of the radio-loud supernova PTF11 qcj and its circumstellar environment, *Astrophys. J.* 782, 42, 2014.
- Dahlen, T., B. Mobasher, S. M. Faber, H. C. Ferguson, N. Hathi, et al., A critical assessment of photometric redshift methods: a CANDELS investigation, *Astrophys. J.* 775, 93, 2013.
- Dall'Ora, M., M. T. Botticella, M. L. Pumo, L. Zampieri, E. Y. Hsiao, N. Morrell, U. Munari, P. Ochner, A. Pastorello, F. Patat, M. M. Philips, et al., The Type IIP supernova 2012aw in M95: hydrodynamical modeling of the photospheric phase from accurate spectrophotometric monitoring, *Astrophys. J.* 787, 139, 2014.

- da Silva, R. L., M. R. Krumholz, M. Fumagalli, and M. S. Fall, An analytic method to compute star cluster luminosity statistics, *Mon. Not. Roy. Astron. Soc.* 438, 2355, 2014.
- Davari, R., L. C. Ho, C. Y. Peng, and S. Huang, How robust are the size measurements of high-redshift compact galaxies? *Astrophys. J.* 787, 69, 2014.
- Davé, R., N. Katz, B. J. Oppenheimer, J. A. Kollmeier, and D. H. Weinberg, The neutral hydrogen content of galaxies in cosmological hydrodynamic simulations, *Mon. Not. Roy. Astron. Soc.* 434, 2645, 2013.
- Davies, R. L., J. A. Rich, L. J. Kewley, and M. A. Dopita, Starburst-AGN mixing – I. NGC 7130, *Mon. Not. Roy. Astron. Soc.* 439, 3835, 2014.
- Decarli, R., M. Dotti, M. Fumagalli, et al., The nature of massive black hole binary candidates – I. Spectral properties and evolution, *Mon. Not. Roy. Astron. Soc.* 433, 1492, 2013.
- de Mink, S. E., et al., The incidence of stellar mergers and mass gainers among massive stars, *Astrophys. J.* 782, 7, 2014.
- Dessart, L., C. P. Gutierrez, M. Hamuy, D. J. Hillier, T. Lanz, J. P. Anderson, G. Folatelli, W. L. Freedman, F. Ley, N. Morrell, S. E. Persson, M. M. Phillips, M. Stritzinger, and N. B. Suntzeff, Type II plateau supernovae as metallicity probes of the universe, *Mon. Not. Roy. Astron. Soc.* 440, 1856, 2014.
- Díaz-Santos, T., L. Armus, V. Charmandaris, G. Stacey, E. J. Murphy, et al., Extended [C II] emission in local luminous infrared galaxies, *Astrophys. J. Lett.* 788, L17, 2014.
- Díaz-Santos, T., L. Armus, V. Charmandaris, S. Stierwalt, E. J. Murphy, et al., Explaining the [C II] 157.7 μm deficit in luminous infrared galaxies---first results from a *Herschel*/PACS study of the GOALS sample, *Astrophys. J.* 774, 68, 2013.
- D’Onofrio, M., G. Fasano, A. Moretti, P. Marziani, A. Dressler et al., The hybrid solution for the Fundamental Plane, *Mon. Not. Roy. Astron. Soc.* 435, 45, 2013.
- Dopita, M. A., J. Rich, et al., Spaxel analysis: probing the physics of star formation in ultraluminous galaxies, *Astrophys. Space Sci.* 350, 741, 2014.
- Eichner, T., S. Seitz, S. H. Suyu, A. Halkola, D. Kelson, et al., Galaxy halo truncation and giant arc surface brightness reconstruction in the cluster MACSJ1206.2-0847, *Astrophys. J.* 774, 124, 2013.
- Elitzur, M., L. C. Ho, and J. R. Trump, Evolution of broad-line emission from active galactic nuclei, *Mon. Not. Roy. Astron. Soc.* 438, 3340, 2014.
- Elmegreen, D., B. G. Elmegreen, S. Erroz-Ferrer, J. H. Knapen, L. C. Ho, M. Seibert, et al., Embedded star formation in S^4G galaxy dust lanes, *Astrophys. J.* 780, 32, 2014.

- Fanidakis, N., A. Georgakakis, G. Mountrichas, M. Krumpe, C. M. Baugh, C. G. Lacey, C. S. Frenk, T. Miiyaaji, and A. J. Benson, Constraints on black hole fuelling modes from the clustering of X-ray AGN, *Mon. Not. Roy. Astron. Soc.* **435**, 679, 2013.
- Farahi, A. and A. J. Benson, Excursion set theory for correlated random walks, *Mon. Not. Roy. Astron. Soc.* **433**, 3428, 2013.
- Feldmeier, J. J., A. Hagen, R. Ciardullo, C. Gronwall, G. A. Blanc, et al., Searching for neutral hydrogen halos around $z \sim 2.1$ and $z \sim 3.1$ Ly α emitting galaxies, *Astrophys. J.* **776**, 75, 2013.
- Fernández, X., A. O. Petric, F. Schweizer, and J. H. van Gorkom, Discovery of a small central disk of CO and H I in the merger remnant NGC 34, *Astron. J.* **147**, 74, 2014.
- Filiz Ak, N., W. N. Brandt, P. B. Hall, D. P. Schneider, Y. Shen, et al., Broad absorption line variability on multi-year timescales in a large quasar sample, *Astrophys. J.* **777**, 168, 2013.
- Finn, C. W., S. L. Morris, N. H. M. Crighton, F. Hamann, C. Done, T. Theuns, M. Fumagalli, et al., A compact, metal-rich, kpc-scale outflow in FBQS J0209-0438: detailed diagnostics from HST/COS extreme UV observations, *Mon. Not. Roy. Astron. Soc.* **440**, 3317, 2014.
- Folatelli, G., N. Morrell, M. M. Phillips, E. Hsiao, A. Campillay, C. Contreras, S. Castellón, M. Hamuy, W. Krzeminski, M. Roth, M. Stritzinger, C. R. Burns, W. L. Freedman, B. F. Madore, D. Murphy, S. E. Persson, et al., Spectroscopy of type Ia supernovae by The Carnegie Supernova Project, *Astrophys. J.* **773**, 53, 2013.
- Förster, F., S. González-Gaitán, G. Folatelli, and N. Morrell, On the Lira Law and the nature of extinction toward Type Ia supernovae, *Astrophys. J.* **772**, 19, 2013.
- Frebel, A., J. D. Simon, and E. N. Kirby, Segue 1: an unevolved fossil galaxy from the early universe, *Astrophys. J.* **786**, 74, 2014.
- Freedman, W. L. and B. F. Madore, The distance scale of the universe, in *Planets, Stars and Stellar Systems*, Vol.6, T. D. Oswalt and W. C. Keel, eds., p. 423, Springer, Dordrecht, 2013.
- Fritz, J., B. M. Poggianti, A. Cava, A. Moretti, A. Dressler et al., WINGS-SPE III. Equivalent width measurements, spectral properties, and evolution of local cluster galaxies, *Astron. Astrophys.* **566**, A32, 2014.
- Fumagalli, M., Metal abundances in the high-redshift intergalactic medium, *Mem. Soc. Astron. Italiana* **85**, 355, 2014.
- Fumagalli, M., et al., Confronting simulations of optically thick gas in massive halos with observations at $z = 2-3$, *Astrophys. J.* **780**, 74, 2014.

Fumagalli M., et al., Dissecting the properties of optically thick hydrogen at the peak of cosmic star formation history, *Astrophys. J.* 775, 78, 2013.

Gallazzi, A., E. F. Bell, S. Zibetti, J. Brinchmann, and D. D. Kelson, Charting the evolution of the ages and metallicities of massive galaxies since $z = 0.7$, *Astrophys. J.* 788, 72, 2014.

Gal-Yam, A., I. Arcavi, E. O. Ofek, S. Ben-Ami, M. M. Kasliwal, et al., A Wolf-Rayet-like progenitor of SN 2013cu from spectral observations of a stellar wind, *Nature* 509, 471, 2014.

Geha, M., T. M. Brown, J. Tumlinson, J. S. Kalirai, J. D. Simon, et al., The stellar initial mass function of ultra-faint dwarf galaxies: evidence for IMF variations with galactic environment, *Astrophys. J.* 771, 29, 2013.

Gieren, W., B. Pilecki, G. Pietrzyński, D. Graczyk, I. B. Thompson et al., The Araucaria Project. OGLE-LMC-CEP-1718: an exotic eclipsing binary system composed of two classical overtone Cepheids in a 413 day orbit, *Astrophys. J.* 786, 80, 2014.

Goobar, A., J. Johansson, R. Amanullah, Y. Cao, D. A. Perley, M. M. Kasliwal, et al., The rise of SN 2014J in nearby galaxy M82, *Astrophys. J. Lett.* 784, L12, 2014.

Govea, J., T. Gomez, G. W. Preston, and C. Sneden, The chemical compositions of RR Lyrae Type C variable stars, *Astrophys. J.* 782, 59, 2014.

Graczyk, D., G. Pietrzyński, I. B. Thompson, et al., The Araucaria Project. The distance to the Small Magellanic Cloud from late-type eclipsing binaries, *Astrophys. J.* 780, 59, 2014.

Green, A. W., K. Glazebrook, P. J. McGregor, I. Damjanov, P. J. McCarthy, et al., DYNAMO – I. A sample of H α -luminous galaxies with resolved kinematics, *Mon. Not. Roy. Astron. Soc.* 437, 1070, 2014.

Grillo, C., R. Gobat, V. Presotto, I. Balestra, D. Kelson, et al., CLASH: extending galaxy strong lensing to small physical scales with distant sources highly magnified by galaxy cluster members, *Astrophys. J.* 786, 11, 2014.

Grootes, M. W., R. J. Tuffs, C. C. Popescu, A. S. G. Robotham, M. Seibert, and L. S. Kelvin, Non-parametric cell-based photometric proxies for galaxy morphology: methodology and application to the morphologically defined star formation-stellar mass relation of spiral galaxies in the local universe, *Mon. Not. Roy. Astron. Soc.* 437, 3883, 2014.

Gu, M., L. C. Ho, C. Y. Peng, and S. Huang, A novel approach to constrain the mass ratio of minor mergers in elliptical galaxies: application to NGC 4889, the brightest cluster galaxy in Coma, *Astrophys. J.* 773, 34, 2013.

Guo, Y., H. C. Ferguson, M. Giavalisco, G. Barro, N. P. Hathi, et al., CANDELS multi-wavelength catalogs: source detection and photometry in the GOODS-South Field, *Astrophys. J. Suppl. Ser.* 207, 24, 2013.

Gutiérrez, C. P., J. P. Anderson, M. Hamuy, S. González-Gaitán, G. Folatelli, N. I. Morrell, M. D. Stritzinger, M. M. Phillips, P. McCarthy, N. B. Suntzeff, and J. Thomas-Osip, H_α spectral diversity of type II supernovae: correlations with photometric properties, *Astrophys. J. Lett.* 786, L15, 2014.

Haan, S., L. Armus, J. A. Surace, V. Charmandaris, E. J. Murphy, et al., The build-up of nuclear stellar cusps in extreme starburst galaxies and major mergers, *Mon. Not. Roy. Astron. Soc.* 434, 1264, 2013.

Hagen, A., Ciardullo, R., C. Gronwall, J. Bridge, G. R. Zeimann, G. A. Blanc, et al., Spectral energy distribution fitting of HETDEX Pilot Survey Ly α emitters in COSMOS and GOODS-N, *Astrophys. J.* 786, 59, 2014.

Hall, P. B., W. N. Brandt, P. Petitjean, I. Pâris, N. Filiz Ak, Y. Shen, et al., Broad absorption line quasars with redshifted troughs: high-velocity infall or rotationally dominated outflows? *Mon. Not. Roy. Astron. Soc.* 434, 222, 2013.

Hamden, E. T., D. Schiminovich, and M. Seibert, The diffuse galactic far-ultraviolet sky, *Astrophys. J.* 779, 180, 2013.

Hao, H., M. Elvis, A. Bongiorno, G. Zamorani, L. C. Ho, et al., A quasar-galaxy mixing diagram: quasar spectral energy distribution shapes in the optical to near-infrared, *Mon. Not. Roy. Astron. Soc.* 434, 3104, 2013.

Hao, H., M. Elvis, F. Civano, G. Zamorani, L. C. Ho, et al., Spectral energy distributions of type I AGN in XMM-COSMOS – II. Shape evolution, *Mon. Not. Roy. Astron. Soc.* 438, 1288, 2014.

Hashimoto, T., M. Ouchi, K. Shimasaku, Y. Ono, K. Nakajima, M. Rauch, J. Lee, and S. Okamura, Erratum: “Gas motion study of Ly α emitters at $z \sim 2$ using far-ultraviolet and optical spectral lines” (2013, ApJ, 765, 70), *Astrophys. J.* 775, 140, 2013.

Helou, G., M. M. Kasliwal, et al., The mid-infrared light curve of nearby core-collapse supernova SN 2011dh (PTF 11eon), *Astrophys. J. Lett.* 778, L19, 2013.

Henry, A., C. Scarlata, A. Domínguez, M. Malkan, A. Dressler, N. Hathi, D. Masters, P. McCarthy et al., Low masses and high redshifts: the evolution of the mass-metallicity relation, *Astrophys. J. Lett.* 776, L27, 2013.

Holoien, T. W.-S., J. L. Prieto, K. Z. Stanek, C. S. Kochanek, J. J. Adams, J. D. Simon, N. Morrell, et al., Discovery and observations of ASASSN-13db, annex Lupi-type accretion event on a low-mass T Tauri star, *Astrophys. J. Lett.* 785, L35, 2014.

Holwerda, B. W., J.-C. Muñoz-Mateos, S. Comerón, S. Meidt, K. Menéndez-Delmestre, M. Seibert, L. C. Ho, et al., Morphological parameters of a *Spitzer* Survey of Stellar Structure in Galaxies, *Astrophys. J.* 781, 12, 2014.

- Horesh, A., S. R. Kulkarni, A. Corsi, D. A. Frail, M. M. Kasliwal, et al., PTF 12gzk --- a rapidly declining, high-velocity Type Ic radio supernova, *Astrophys. J.* 778, 63, 2013.
- Horesh, A., C. Stockdale, D. B. Fox, D. A. Frail, M. M. Kasliwal, et al., An early and comprehensive millimeter and centimeter wave and X-ray study of SN 2011dh: a non-equipartition blast wave expanding into a massive stellar wind, *Mon. Not. Roy. Astron. Soc.* 436, 1258, 2013.
- Hou, A., L. C. Parker, M. L. Balogh, S. L. McGee, J. S. Mulchaey, et al., Do group dynamics play a role in the evolution of member galaxies? *Mon. Not. Roy. Astron. Soc.* 435, 1715, 2013.
- Inami, H., L. Armus, V. Charmandaris, B. Groves, J. Rich, et al., Mid-infrared atomic fine-structure emission-line spectra of luminous infrared galaxies: *Spitzer*/IRS spectra of the GOALS sample, *Astrophys. J.* 777, 156, 2013.
- Irwin, J., M. Krause, J. English, R. Beck, E. Murphy, et al., CHANG-ES. III. UGC 10288 --- an edge-on galaxy with a background double-lobed radio source, *Astron. J.* 146, 164, 2013.
- Janz, J., E. Laurikainen, T. Lisker, H. Salo, R. F. Peletier, S.-M. Niemi, E. Toloba, et al., A near-infrared census of the multicomponent stellar structure of early-type dwarf galaxies in the Virgo Cluster, *Astrophys. J.* 786, 105, 2014.
- Johnson, C. I., A. McWilliam, and R. R. Rich, Chemical abundance analysis of a neutron-capture enhanced red giant in the bulge plaut field, *Astrophys. J. Lett.* 775, L27, 2013.
- Johnson, S. D., H.-W. Chen, J. S. Mulchaey, et al., Discovery of a transparent sightline at $\rho \leq 20$ kpc from an interacting pair of galaxies, *Mon. Not. Roy. Astron. Soc.* 438, 3039, 2014.
- Johnson, S. D., H.-W. Chen, and J. S. Mulchaey, Probing the IGM-galaxy connection at $z > 0.5$ – II. New insights into the galaxy environments of O VI absorbers in PKS 0405-123, *Mon. Not. Roy. Astron. Soc.* 434, 1765, 2013.
- Jouvel, S., O. Host, O. Lahav, S. Seitz, D. Kelson, et al., CLASH: photometric redshifts with 16 HST bands in galaxy cluster fields, *Astron. Astrophys.* 562, A86, 2014.
- Jurek, R. J., M. J. Drinkwater, K. Pimbblet, K. Glazebrook, B. Madore, et al., The WiggleZ Dark Energy Survey: star formation in UV-luminous galaxies from their luminosity functions, *Mon. Not. Roy. Astron. Soc.* 434, 257, 2013.
- Kaluzny, J., M. Rozyczka, W. Pych, W. Krzeminski, K. Zloczewski, W. Narloch, and I. B. Thompson, The Cluster AgeS Experiment (CASE). Variable stars in the globular cluster 47 Tucanae, *Acta Astron.* 63, 309, 2013.
- Kaluzny, J., M. Rozyczka, W. Pych, and I. B. Thompson, The Cluster AgeS Experiment (CASE). Variable stars in the field of the open cluster NGC 6253, *Acta Astron.* 64, 77, 2014.

Kaluzny, J., I. B. Thompson, A. Dotter, M. Rozyczka, W. Pych, S. M. Rucinski, and G. S. Burley, The Clusters AgeS Experiment (CASE). VI. Analysis of two detached eclipsing binaries in the globular cluster M55, *Acta Astron.* 64, 11, 2014.

Kashino, D., J. D. Silverman, G. Rodighiero, A. Renzini, D. Masters, et al., The FMOS-COSMOS Survey of star-forming galaxies at $z \sim 1.6$. I. H α -based star formation rates and dust extinction, *Astrophys. J. Lett.* 777, L8, 2013.

Kelson, D. D., R. J. Williams, A. Dressler, P. J. McCarthy, S. A. Shectman, J. S. Mulchaey, E. V. Villanueva, J. D. Crane, and R. F. Quadri, The Carnegie-Spitzer-IMACS Redshift Survey of galaxy evolution since $z = 1.5$. I. Description and methodology, *Astrophys. J.* 783, 110, 2014.

Kerzendorf, W. E., D. Yong, B. P. Schmidt, J. D. Simon, et al., A high-resolution spectroscopic search for the remaining donor for Tycho's Supernova, *Astrophys. J.* 774, 99, 2013.

Kim, T., D. A. Gadotti, K. Sheth, E. Athanassoula, A. Bosma, M. G. Lee, B. F. Madore, B. Elmegreen, J. H. Knapen, D. Zaritsky, L. C. Ho, M. Seibert, et al., Unveiling the structure of barred galaxies at 3.6 μm with the Spitzer Survey of Stellar Structure in Galaxies (S⁴G). I. Disk breaks, *Astrophys. J.* 782, 64, 2014.

Kirkpatrick, J. D., A. Schneider, S. Fajardo-Acosta, C. R. Gelino, J. A. Rich, et al., The ALLWISE Motion Survey and the quest for cold subdwarfs, *Astrophys. J.* 783, 122, 2014.

Koch, A. and A. McWilliam, The chemical composition of a regular halo globular cluster: NGC 5897, *Astron. Astrophys.* 565, A23, 2014.

Koda, J., M. Yagi, S. Boissier, A. Gil de Paz, M. Imanishi, J. D. Meyer, B. F. Madore, and D. A. Thilker, The initial mass function in the outskirts of M83, in *Galaxy Mergers in an Evolving Universe*, ASP Conf. Series 477, W.-H. Sun et al., eds., p. 3, Astronomical Society of the Pacific, San Francisco, CA, 2013.

Kollmeier, J. A., D. M. Szczygieł, C. R. Burns, A. Gould, I. B. Thompson, G. W. Preston, C. Sneden, J. D. Crane, S. Dong, B. F. Madore, N. Morrell, J. L. Prieto, S. Shectman, J. D. Simon, and E. Villanueva, The absolute magnitude of RRc variables from statistical parallax, *Astrophys. J.* 775, 57, 2013.

Kormendy, J. and L. C. Ho, Coevolution (or not) of supermassive black holes and host galaxies, *Ann. Rev. Astron. Astrophys.* 51, 511, 2013.

Lee, D. M., K. V. Johnston, J. Tumlinson, B. Sen, and J. D. Simon, A mass-dependent yield origin of neutron-capture element abundance distributions in ultra-faint dwarfs, *Astrophys. J.* 774, 103, 2013.

Li, Y.-R., J.-M. Wang, L. C. Ho, et al., A Bayesian approach to estimate the size and structure of the broad-line region in active galactic nuclei using reverberation mapping data, *Astrophys. J.* 779, 110, 2013.

Lemze, D., M. Postman, S. Genel, H. C. Ford, I. Balestra, M. Donahue, D. Kelson, et al., The contribution of halos with different mass ratios to the overall growth of cluster-sized halos, *Astrophys. J.* 776, 91, 2013.

Lusso, E., R. Decarli, M. Dotti, C. Montuori, M. Fumagalli, et al., The nature of massive black hole binary candidates – II. Spectral energy distribution atlas, *Mon. Not. Roy. Astron. Soc.* 441, 316, 2014.

Madore, B. F., D. Hoffman, W. L. Freedman, J. A. Kollmeier, A. Monson, S. E. Persson, J. A. Rich, Jr., V. Scowcroft, and M. Seibert, A preliminary calibration of the RR Lyrae period-luminosity relation at mid-infrared wavelengths: WISE data, *Astrophys. J.* 776, 135, 2013.

Mager, V. A., B. F. Madore, and W. L. Freedman, The metallicity dependence of the Cepheid P – L Relation in M101, *Astrophys. J.* 777, 79, 2013.

Maguire, K., M. Sullivan, F. Patat, A. Gal-Yam, J. D. Simon, N. Morrell, et al., A statistical analysis of circumstellar material in Type Ia supernovae, *Mon. Not. Roy. Astron. Soc.* 436, 222, 2013.

Maíz Apellániz, J., A. Sota, R. H. Barbá, N. I. Morrell, et al., First results from a study of DIBs with thousands of high-quality massive-star spectra, in *The Diffuse Interstellar Bands*, IAU Symp. 297, J. Cami and N. L. J. Cox, eds., p. 117, Cambridge University Press, Cambridge, 2014.

Majaess, D., L. Sturch, C. Moni Bidin, M. Soto, B. Madore, et al., Anchors for the cosmic distance scale: the Cepheid QZ Normae in the open cluster NGC 6067, *Astrophys. Space Sci.* 347, 61, 2013.

Maksym, W. P., M. P. Ulmer, M. C. Eracleous, L. Guennou, and L. C. Ho, A tidal flare candidate in Abell 1795, *Mon. Not. Roy. Astron. Soc.* 435, 1904, 2013.

Males, J. R., L. M. Close, K. M. Morzinski, D. Kopon, A. Uomoto, T. Hare, et al., High contrast imaging of an exoplanet with the Magellan VisAO Camera, in *Exploring the Formation and Evolution of Planetary Systems*, IAU Symp. 299, M. Booth, B. C. Matthews, and J. R. Graham, eds., p. 46, Cambridge University Press, Cambridge, 2014.

Margutti, R., D. Milisavljevic, A. M. Soderberg, R. Chornock, E. Hsiao, ... N. Morrell, K. F. Neugent, N. Omodei, M. M. Phillips, et al., A panchromatic view of the restless SN 2009ip reveals the explosive ejection of a massive star envelope, *Astrophys. J.* 780, 21, 2014.

- Marín, F. A., C. Blake, G. B. Poole, C. K. McBride, B. Madore, et al., The WiggleZ Dark Energy Survey: constructing galaxy bias and cosmic growth with three-point correlation functions, *Mon. Not. Roy. Astron. Soc.* 432, 2654, 2013.
- Marion, G. H., J. Vinko, J. C. Wheeler, R. J. Foley, E. Y. Hsiao, et al., High-velocity line forming regions in the Type Ia supernova 2009ig, *Astrophys. J.* 777, 40, 2013.
- Massey, P., K. F. Neugent, N. Morrell, and D. J. Hillier, A modern search for Wolf-Rayet stars in the Magellanic Clouds: first results, *Astrophys. J.* 788, 83, 2014.
- Masters, D., P. McCarthy, B. Siana, M. Malkan, G. Blanc, A. Dressler et al., Physical properties of emission-line galaxies at $z \sim 2$ from near infrared spectroscopy with Magellan FIRE, *Astrophys. J.* 785, 153, 2014.
- Matsuoka, K., J. D. Silverman, M. Schramm, C. L. Steinhardt, D. Masters, et al., A comparative analysis of virial black hole mass estimates of moderate-luminosity active galactic nuclei using Subaru/FMOS, *Astrophys. J.* 771, 64, 2013.
- McCully, C., S. W. Jha, R. J. Foley, R. Chornock, E. Y. Hsiao, et al., *Hubble Space Telescope* and ground-based observations of the Type Iax supernovae SN 2005hk and SN 2008A, *Astrophys. J.* 786, 134, 2014.
- McWilliam, A., G. Wallerstein, and M. Mottini, Chemistry of the Sagittarius dwarf galaxy: a top-light initial mass function, outflows, and the R-process, *Astrophys. J.* 778, 149, 2013.
- Medezinski, E., K. Umetsu, M. Nonino, J. Merten, D. Kelson, et al., CLASH: complete lensing analysis of the largest cosmic lens MACS J0717.5+3745 and surrounding structures, *Astrophys. J.* 777, 43, 2013.
- Meidt, S. E., E. Schinnerer, G. van de Ven, D. Zaritsky, L. C. Ho, M. Seibert, et al., Reconstructing the stellar mass distributions of galaxies using S⁴G IRAC 3.6 and 4.5 μm images. II. The conversion from light to mass, *Astrophys. J.* 788, 144, 2014.
- Miller, S. H., R. S. Ellis, A. B. Newman, and A. Benson, The dwarfs beyond: the stellar-to-halo mass relation for a new sample of intermediate redshift low-mass galaxies, *Astrophys. J.* 782, 115, 2014.
- Mok, A., M. L. Balogh, S. L. McGee, D. J. Wilman, J. S. Mulchaey, et al., Star formation and environmental quenching of GEEC2 group galaxies at $z \sim 1$, *Mon. Not. Roy. Astron. Soc.* 438, 3070, 2014.
- Monna, A., S. Seitz, N. Greisel, T. Eichner, D. Kelson, et al., CLASH: $z \sim 6$ young galaxy candidate quintuply lensed by the frontier field cluster RXC J2248.7-4431, *Mon. Not. Roy. Astron. Soc.* 438, 1417, 2014.

Moretti, A., B. M. Poggianti, G. Fasano, D. Bettoni, A. Dressler et al., WINGS data release: a database of galaxies in nearby clusters, *Astron. Astrophys.* 564, A138, 2014.

Mosleh, M., R. J. Williams, and M. Franx, On the robustness of $z = 0-1$ galaxy size measurements through model and non-parametric fits, *Astrophys. J.* 777, 117, 2013.

Morzinski, K. M., L. M. Close, J. R. Males, P. M. Hinz, A. Uomoto, T. Hare, et al., Direct imaging of Beta Pictoris b with first-light Magellan adaptive optics, in *Exploring the Formation and Evolution of Planetary Systems*, IAU Symp. 299, M. Booth, B. C. Matthews, and J. R. Graham, eds., p. 252, Cambridge University Press, Cambridge, 2014.

Mulchaey, J. S., M. M. Kasliwal, and J. A. Kollmeier, Calcium-rich gap transients: solving the calcium conundrum in the intracluster medium, *Astrophys. J. Lett.* 780, L34, 2014.

Muñoz-Mateos, J. C., K. Sheth, A. Gil De Paz, S. Meidt, L. C. Ho, B. Holwerda, T. H. Jarrett, T. Kim, J. H. Knapen, J. Laine, E. Laurikainen, B. F. Madore, M. Seibert, et al., The impact of bars on disk breaks as probed by S⁴G imaging, *Astrophys. J.* 771, 59, 2013.

Murphy, E. J., The role of merger stage on galaxy radio spectra in local infrared-bright starburst galaxies, *Astrophys. J.* 777, 58, 2013.

Narloch, W., J. Kaluzny, W. Krzaminski, W. Pych, M. Rozyczka, S. Sheckman, I. B. Thompson, and T. Tomov, New observations of the old magnetic nova GQ Muscae, *Baltic Astron.* 23, 1, 2014.

Nordin, J., D. Rubin, J. Richard, E. Rykoff, E. Y. Hsiao, et al., Lensed Type Ia supernovae as probes of cluster mass models, *Mon. Not. Roy. Astron. Soc.* 440, 2742, 2014.

Ofek, E. O., I. Arcavi, D. Tal, M. Sullivan, M. M. Kasliwal, et al., Interaction-powered supernovae: rise-time versus peak-luminosity correlation and the shock-breakout velocity, *Astrophys. J.* 788, 154, 2014.

Pan, Y.-C., M. Sullivan, K. Maguire, I. M. Hook, E. Hsiao, et al., The host galaxies of Type Ia supernovae discovered by the Palomar Transient Factory, *Mon. Not. Roy. Astron. Soc.* 438, 1391, 2014.

Patel, B., C. McCully, S. W. Jha, S. A. Rodney, D. Kelson, et al., Three gravitationally lensed supernovae behind CLASH galaxy clusters, *Astrophys. J.* 786, 9, 2014.

Patel, S. G., M. Fumagalli, M. Franx, P. G. van Dokkum, R. F. Quadri, et al., The structural evolution of Milky-Way-like star-forming galaxies since $z \sim 1.3$, *Astrophys. J.* 778, 115, 2013.

Phillips, M. M., J. D. Simon, N. Morrell, C. R. Burns, . . . E. Y. Hsiao, D. C. Leonard, S. E. Persson, M. Stritzinger, I. B. Thompson, A. Campillay, C. Contreras, G. Folatelli, W. L. Freedman, M. Hamuy, M. Roth, . . . B. F. Madore, B. E. Penprase, D. Perley, G. Pignata, G.

Preston, and A. M. Soderberg, On the source of the dust extinction in type Ia supernovae and the discovery of anomalously strong Na I absorption, *Astrophys. J.* 779, 38, 2013.

Pilecki, B., D. Graczyk, G. Pietrzyński, W. Gieren, I. B. Thompson, W. L. Freedman, V. Scowcroft, B. F. Madore, et al., Physical parameters and the projection factor of the classical Cepheid in the binary system OGLE-LMC-CEP-0227, *Mon. Not. Roy. Astron. Soc.* 436, 953, 2013.

Pirzkal, N., B. Rothberg, C. Ly, S. Malhotra, N. P. Hathi, et al., Emission-line galaxies from the *Hubble Space Telescope* Probing Evolution and Reionization Spectroscopically (PEARS) Grism Survey. II. The complete sample, *Astrophys. J.* 772, 48, 2013.

Presotto, V., M. Girardi, M. Nonino, A. Mercurio, D. Kelson, et al., Intracluster light properties in the CLASH-VLT cluster MACS J1206.2-0847, *Astron. Astrophys.* 565, A126, 2014.

Preston, G. W. and M. Chadid, Axial rotation and turbulence of RR ab stars: the Peterson Conundrum revisited, in *New Advances in Stellar Physics: From Microscopic to Macroscopic Processes*, EAS Pub. Series 63, G. Alecian et al., eds., p. 35, Cambridge University Press, Cambridge, UK.

Prieto, J. L., A. Rest, F. B. Bianco, T. Matheson, N. Smith, N. R. Walborn, E. Y. Hsiao, R. Chornock, L. Paredes Álvarez, A. Campillay, C. Contreras, C. González, D. James, G. R. Knapp, A. Kunder, S. Margheim, N. Morrell, M. M. Phillips, et al., Light echoes from η Carinae's great eruption: spectrophotometric evolution and the rapid formation of nitrogen-rich molecules, *Astrophys. J. Lett.* 787, L8, 2014.

Prochaska, J. X., P. Madau, J. M. O'Meara, and M. Funagalli, Towards a unified description of the intergalactic medium at redshift $z \sim 2.5$, *Mon. Not. Roy. Astron. Soc.* 438, 476, 2014.

Rafelski, M., M. Neeleman, M. Fumagalli, et al., The rapid decline in metallicity of damped Ly α systems at $z \sim 5$, *Astrophys. J. Lett.* 782, L29, 2014.

Ramírez-Agudelo, O. H., S. Simón-Díaz, H. Sana, A. de Koter, C. Sabín-Sanjulían, S. E. de Mink, et al., The VLT-FLAMES Tarantula Survey. XII. Rotational velocities of the single O-type stars, *Astron. Astrophys.* 560, A29, 2013.

Rangel, C., K. Nandra, G. Barro, M. Brightman, N. Hathi, et al., Evidence for two modes of black hole accretion in massive galaxies at $z \sim 2$, *Mon. Not. Roy. Astron. Soc.* 440, 3630, 2014.

Rauch, M., Identifying physical processes of metal-enrichment in the intergalactic medium at $z = 3$, *Mem. Soc. Astron. Italiana* 85, 367, 2014.

Rauch, M., G. D. Becker, M. G. Haehnelt, and J.-R. Gauthier, Star-forming galactic contrails as a source of metal enrichment and ionizing radiation at high redshift, *Mon. Not. Roy. Astron. Soc.* 441, 73, 2014.

Rhoads, J. E., S. Malhotra, D. Stern, M. Dickinson, N. Hathi, et al., A Lyman break galaxy in the epoch of reionization from *Hubble Space Telescope* grism spectroscopy, *Astrophys. J.* 773, 32, 2013.

Rich, J. A., L. J. Kewley, and M. A. Dopita, Composite spectra in merging U/LIRGs caused by shocks, *Astrophys. J. Lett.* 781, L12, 2014.

Robertson, P., G. A. Shields, R. Davé, G. A. Blanc, and A. Wright, Dependence of nebular heavy-element abundance on H I content for spiral galaxies, *Astrophys. J.* 773, 4, 2013.

Roederer, I., G. W. Preston, I. B. Thompson, S. A. Shectman, and C. Sneden, Neutron-capture nucleosynthesis in the first stars, *Astrophys. J.* 784, 158, 2014.

Roederer, I., G. W. Preston, I. B. Thompson, S. A. Shectman, C. Sneden, G. S. Burley, and D. D. Kelson, A search for stars of very low metal abundance. VI. Detailed abundances of 313 metal-poor stars, *Astron. J.* 147, 136, 2014.

Różanska, A., J. Kaluzny, M. Różyczka, W. Krzeminski, and I. B. Thompson, Second neutron star in globular cluster M4, *Mem. Soc. Astron. Italiana* 84, 598, 2013.

Sakari, C. M., M. Shetrone, K. Venn, A. McWilliam, and A. Dotter, Spectrum syntheses of high-resolution integrated light spectra of Galactic globular clusters, *Mon. Not. Roy. Astron. Soc.* 434, 358, 2013.

Santana, F. A., R. R. Muñoz, M. Geha, P. Côté, P. Stetson, J. D. Simon, and S. G. Djorgovski, A MegaCam survey of outer halo satellites. II. Blue stragglers in the lowest stellar density systems, *Astrophys. J.* 774, 106, 2013.

Sartoris, B., A. Biviano, P. Rosati, S. Borgani, D. Kelson, et al., CLASH-VLT: constraints on the dark matter equation of state from accurate measurements of galaxy cluster mass profiles, *Astrophys. J. Lett.* 783, L11, 2014.

Schmidt, K. B., T. Treu, G. B. Brammer, M. Bradač, X. Wang, M. Dijkstra, A. Dressler, et al., Through the looking glass: *HST* spectroscopy of faint galaxies lensed by the Frontier Fields cluster MACSJ0717.5+3745, *Astrophys. J. Lett.* 782, L36, 2014.

Schmidt, S. J., J. L. Prieto, K. Z. Stanek, B. J. Shappee, N. Morrell, et al., Characterizing a dramatic $\Delta V \sim -9$ flare on an ultracool dwarf found by the ASAS-SN Survey, *Astrophys. J. Lett.* 781, L24, 2014.

Schneider, F. R. N., R. G. Izzard, S. E. de Mink, et al., Ages of young star clusters, massive blue stragglers, and the upper mass limit of stars: analyzing age-dependent stellar mass functions, *Astrophys. J.* 780, 117, 2014.

Schweizer, F., P. Seitzer, D. D. Kelson, E. V. Villanueva, and G. L. Walth, The [O III] nebula of the merger remnant NGC 7252: a likely faint ionization echo, *Astrophys. J.* 773, 148, 2013.

Scowcroft, V., W. L. Freedman, B. F. Madore, A. J. Monson, S. E. Persson, M. Seibert, J. R. Rigby, and J. Melbourne, The Carnegie Hubble Program: the Infrared Leavitt Law in IC 1613, *Astrophys. J.* 773, 106, 2013.

Shappee, B. J., J. L. Prieto, D. Grupe, C. S. Kochanek, A. Campillay, C. Choi, C. Contreras, C. Gonzalez, E. Hawkins, D. A. Howell, E. Y. Hsiao, M. Koss, K. M. Leighly, N. Morrell, D. Mudd, D. Mullins, J. M. Nugent, J. Parrent, M. Phillips, et al., The man behind the curtain: X-rays drive the UV through NIR variability in the 2013 active galactic nucleus outburst in NGC 2617, *Astrophys. J.* 788, 48, 2014.

Sheets, H. A., A. D. Bolatto, J. Th. van Loon, K. Sandstrom, J. D. Simon, et al., Dusty OB stars in the Small Magellanic Cloud. I. Optical spectroscopy reveals predominantly main-sequence OB stars, *Astrophys. J.* 771, 111, 2013.

Shen, Y., et al., Constraining sub-parsec binary supermassive black holes in quasars with multi-epoch spectroscopy. I. The general quasar population, *Astrophys. J.* 775, 49, 2013.

Shen, Y., et al., Cross-correlation of SDSS DR7 quasars and DR10 BOSS galaxies: the weak luminosity dependence of quasar clustering at $z \sim 0.5$, *Astrophys. J.* 778, 98, 2013.

Shibuya, T., M. Ouchi, K. Nakajima, Y. Ono, M. Rauch, et al., What is the physical origin of strong Ly α emission? II. Gas kinematics and distribution of Ly α emitters, *Astrophys. J.* 788, 74, 2014.

Silverman, J. M., P. E. Nugent, A. Gal-Yam, M. Sullivan, M. M. Kasliwal, et al., Type Ia supernovae strongly interacting with their circumstellar medium, *Astrophys. J. Suppl. Ser.* 207, 3, 2013.

Silverman, J. M., J. Vinko, M. M. Kasliwal, et al., SN 2000cx and SN 2013bh: extremely rare, nearly twin Type Ia supernovae, *Mon. Not. Roy. Astron. Soc.* 436, 1225, 2013.

Singer, L. P., S. B. Cenko, M. M. Kasliwal, D. A. Perley, J. S. Mulchaey, et al., Discovery and redshift of an optical afterglow in 71 deg²: iPTF13bxi and GRB 130702A, *Astrophys. J. Lett.* 776, L34, 2013.

Smee, S. A., J. E. Gunn, A. Uomoto, C. Hull, et al., The multi-object, fiber-fed spectrographs for the Sloan Digital Sky Survey and the Baryon Oscillation Spectroscopic Survey, *Astron. J.* 146, 32, 2013.

Smit, R., R. J. Bouwens, I. Labbé, W. Zheng, D. Kelson, et al., Evidence for ubiquitous high-equivalent-width nebular emission in $z \sim 7$ galaxies: toward a clean measurement of the specific star-formation rate using a sample of bright, magnified galaxies, *Astrophys. J.* 784, 58, 2014.

- Smith, N., J. C. Mauerhan, M. M. Kasliwal, and A. J. Burgasser, Near-infrared spectroscopy of SN 2009ip's 2012 brightening reveals a dusty pre-supernova environment, *Mon. Not. Roy. Astron. Soc.* 434, 2721, 2013.
- Sota, A., J. Maíz Apellániz, N. I. Morrell, et al., The Galactic O-Star Spectroscopic Survey (GOSSS). II. Bright southern stars, *Astrophys. J. Suppl. Ser.* 211, 10, 2014.
- Spilker, J. S., D. P. Marrone, J. E. Aguirre, M. Aravena, E. J. Murphy, et al., The rest-frame submillimeter spectrum of high-redshift, dusty, star-forming galaxies, *Astrophys. J.* 785, 149, 2014.
- Spitler, L. R., C. M. S. Straatman, I. Labbé, K. Glazebrook, K.-V. Tran, G. G. Kacprzak, R. F. Quadri, C. Popovich, S. E. Persson, D. D. Kelson, P. J. McCarthy, N. Mehrrens, A. J. Monson, et al., Exploring the $z = 3-4$ massive galaxy population with ZFOURGE: the prevalence of dusty and quiescent galaxies, *Astrophys. J. Lett.* 787, L36, 2014.
- Straatman, C. M. S., I. Labbé, L. R. Spitler, R. Allen, D. D. Kelson, P. J. McCarthy, N. Mehrrens, A. Monson, D. Murphy, C. Popovich, S. E. Persson, R. Quadri, et al., A substantial population of massive quiescent galaxies at $z \sim 4$ from ZFOURGE, *Astrophys. J. Lett.* 783, L14, 2014.
- Stritzinger, M. D., E. Hsiao, S. Velenti, F. Taddia, ... M. M. Phillips, G. Pignata, E. Baron, C. R. Burns, C. Contreras, G. Folatelli, M. Hamuy, P. Höflich, N. Morrell, J. L. Prieto, S. Benetti, A. Campillay, et al. Optical and near-IR observations of the faint and fast 2008ha-like supernova 2010ae, *Astron. Astrophys.* 561, A146, 2014.
- Taddia, F., M. D. Stritzinger, J. Sollerman, M. M. Phillips, J. P. Anderson, L. Boldt, A. Campillay, S. Castellón, C. Contreras, G. Folatelli, M. Hamuy, E. Heinrich-Josties, W. Krzeminski, N. Morrell, C. R. Burns, W. L. Freedman, B. F. Madore, S. E. Persson, and N. B. Suntzeff, Carnegie Supernova Project: observations of type II_n supernovae, *Astron. Astrophys.* 555, A10, 2013.
- Takáts, K., M. L. Pumo, N. Elias-Rosa, A. Pastorello, A. Campillay, N. Morrell, M. Nissinen, M. M. Phillips, et al., SN 2009N: linking normal and subluminous Type II-P SNe, *Mon. Not. Roy. Astron. Soc.* 438, 368, 2014.
- Tang, S., L. Bildsten, W. M. Wolf, K. L. Li, M. M. Kasliwal, et al., An accreting white dwarf near the Chandrasekhar Limit in the Andromeda Galaxy, *Astrophys. J.* 786, 61, 2014.
- Tapia, M., P. Persi, M. Roth, et al., *Herschel*, *Spitzer* and Magellan infrared observations of the star-forming region RCW 121 (IRAS 17149-3916), *Mon. Not. Roy. Astron. Soc.* 437, 606, 2014.
- Tasca, L. A. M., L. Tresse, O. Le Fèvre, O. Ilbert, L. C. Ho, et al., The zCOSMOS redshift survey: evolution of the light in bulges and discs since $z \sim 0.8$, *Astron. Astrophys.* 564, L12, 2014.

- Toloba, E., et al., Stellar kinematics and structural properties of Virgo Cluster dwarf early-type galaxies from the SMAKCED Project. I. Kinematically decoupled cores and implications for infallen groups in clusters, *Astrophys. J.* 783, 120, 2014.
- Tomczak, A. R., R. F. Quadri, K.-V. H. Tran, I. Labbé, D. D. Kelson, P. J. McCarthy, N. Mehrrens, A. J. Monson, S. E. Persson, et al., Galaxy stellar mass functions from ZFOURGE/CANDELS: an excess of low-mass galaxies since $z = 2$ and the rapid buildup of quiescent galaxies, *Astrophys. J.* 783, 85, 2014.
- Tramper, F., G. Gräfener, O. E. Hartoog, H. Sana, S. E. de Mink et al., On the nature of WO stars: a quantitative analysis of the WO3 star DR1 in IC 1613, *Astron. Astrophys.* 559, A72, 2013.
- van de Sande, J., M. Kriek, M. Franx, P. G. van Dokkum, R. Bezanson, R. J. Bouwens, R. F. Quadri, et al., Stellar kinematics of $z \sim 2$ galaxies and the inside-out growth of quiescent galaxies, *Astrophys. J.* 771, 85, 2013.
- van der Wel, A., M. Franx, P. G. van Dokkum, R. E. Skelton, S. G. Patel, et al., 3D-HST+CANDELS: the evolution of the galaxy size-mass distribution since $z = 3$, *Astrophys. J.* 788, 28, 2014.
- Viero, M. P., V. Asboth, I. G. Roseboom, L. Moncelsi, R. Quadri, et al., The *Herschel* Stripe 82 Survey (HerS): maps and early catalog, *Astrophys. J. Suppl. Ser.* 210, 22, 2014.
- Viero, M. P., L. Moncelsi, R. F. Quadri, et al., HerMES: the contribution to the cosmic infrared background from galaxies selected by mass and redshift, *Astrophys. J.* 779, 32, 2013.
- Williams, C. C., M. Giavalisco, P. Cassata, E. Tundo, N. Hathi, et al., The progenitors of the compact early-type galaxies at high redshift, *Astrophys. J.* 780, 1, 2014.
- Wittenmyer, R. A., X. Tan, M. H. Lee, J. Horner, J. D. Crane, S. A. Shectman, P. Arriagada, I. Thompson, et al., A detailed analysis of the HD 73526 2:1 resonant planetary system, *Astrophys. J.* 780, 140, 2014.
- Wong, O. I., Kenney, J. D. P., E. J. Murphy, and G. Helou, The search for shock-excited H₂ in Virgo spirals experiencing ram pressure stripping, *Astrophys. J.* 783, 109, 2014.
- Wright, E. L., J. D. Kirkpatrick, C. R. Gelino, S. Fajardo-Acosta, M. Fumagalli, et al., The first ALLWISE proper motion discovery: WISEA J070720.50+170532.7, *Astron. J.* 147, 61, 2014.
- Yong, D., J. Meléndez, F. Grundahl, I. U. Roederer, et al., High precision differential abundance measurements in globular clusters: chemical inhomogeneities in NGC 6752, *Mon. Not. Roy. Astron. Soc.* 434, 3542, 2013.

Zaritsky, D., H. Courtois, J.-C. Muñoz-Mateos, J. Sorce, M. Seibert, K. Sheth, E. Athanassoula, A. Bosma, M. Cisternas, L. C. Ho, et al., The baryonic Tully-Fisher relationship for S⁴G galaxies and the “condensed” baryon fraction of galaxies, *Astron. J.* 147, 134, 2014.

Zaritsky, D., H. Salo, E. Laurikainen, D. Elmegreen, L. C. Ho, B. W. Holwerda, T. Kim, J. H. Knapen, J. Laine, S. Laine, B. F. Madore, M. Seibert, et al., On the origin of lopsidedness in galaxies as determined from the Spitzer Survey of Stellar Structure in Galaxies (S⁴G), *Astrophys. J.* 772, 135, 2013.

Zheng, W., J. M. Silverman, A. V. Filippenko, D. Kasen, E. Hsiao, et al., The very young Type Ia supernova 2013dy: discovery, and strong carbon absorption in early-time spectra, *Astrophys. J. Lett.* 778, L15, 2013.

Zhou, G., D. Bayliss, K. Penev, G. Á. Bakos, S. Shectman, I. Thompson, J. Crane, et al., HATS-5b: a transiting hot Saturn from the HATSouth Survey, *Astron. J.* 147, 144, 2014.

Ziparo, F., P. Popesso, A. Biviano, A. Finogeeunov, J. S. Mulchaey, et al., The lack of star formation gradients in galaxy groups up to $z \sim 1.6$, *Mon. Not. Roy. Astron. Soc.* 434, 3089, 2013.

Ziparo, F., P. Popesso, A. Finogeeunov, A. Biviano, J. S. Mulchaey, et al., Reversal or no reversal: the evolution of the star formation rate-density relation up to $z \sim 1.6$, *Mon. Not. Roy. Astron. Soc.* 437, 458, 2014.

Zoccali, M., O. A. Gonzalez, S. Vasquez, V. Hill, A. McWilliam et al., The GIRAFFE Inner Bulge Survey (GIBS). I. Survey description and a kinematical map of the Milky Way bulge, *Astron. Astrophys.* 562, A66, 2014.

Plant Biology
Bibliography 2013 – 2014

Akhi Moni, A., A. -Y. Lee, W. R. Briggs, and I. -S. Han, The blue-light receptor phototropin 1 suppresses lateral root growth by controlling cell elongation, *Plant Biol.*, doi: 10.1111/plb.12187, 2014.

Aksoy, M., Pootakham, W., and A. R. Grossman, Critical Function of a *Chlamydomonas reinhardtii* Putative Vacuolar Transporter Chaperone during Nutrient Deprivation, *Plant Cell*, 2014, In Submission.

Aksoy, M., Pootakham, W., Pollock, S.V., Moseley, J.L., Gonzalez-Ballester, D., and A. R. Grossman, Tiered regulation of sulfur deprivation responses in *Chlamydomonas reinhardtii* and identification of an associated regulatory factor, *Plant Physiol.* 162, 195-211, 2013.

Arenhart, R. A., Bai, Y., de Oliveira, L. F. V., Neto, L. B., Schunemann, M., Maraschin, F. S., Mariath, J., Silverio, A., Sachetto-Martins, G., Margis, R., Wang, Z. Y., and M. Margis-Pinheiro, ASR5 is a major transcription regulator for aluminum responsive gene expression in rice, *Mol Plant* 7 (no. 4), 709-21, 2014.

Bao, Y., Aggarwal, P., Robbins II, N. E., Sturrock, C. J., Thompson, M. C., Tan, H. Q., Tham, C., Rodriguez, P. L., Vernoux, T., Mooney, S. J., Bennett, M. J., and J. R. Dinneny, Plant roots employ a patterning mechanism to position lateral root branches towards available water, *Proc. Natl. Acad. Sci* PMID: 24927545, 2014.

Bhaya, D., and B. Brahamsha, Motility and the regulation of phototaxis in cyanobacteria in *The Cell Biology of Cyanobacteria* Editors: E. Flores & A. Herrero, Caister Academic Press 2014.

Briggs, W. R., Phototropism: some history, some puzzles, and a look ahead, *Plant Physiol.* 164, 13-23, 2014.

Chae, L., Kim, T., Dreher, K., and S. Y. Rhee, Genomic signatures of specialized metabolism in plants, *Science* 344, 510-513, 2014.

Davison, D., and D. Bhaya, “Creation and analysis of a virome: using CRISPR spacers” in “CRISPR: Methods and Protocols” eds Fineran P, Lundgren M and E. Charpentier 2014

Davison, M., Hall, E., Zare, R. N., and D. Bhaya, “From metagenomics to single cell genomics: using sequencing technologies to capture cyanobacterial diversity,” *Photosynthesis Research*, 2014, Submitted.

Davison, M., Treangen, T., Pop, M., Gosrani, S., and D. Bhaya, Virome and host interactions in microbial mats, *ISME Journal*, 2014, Submitted.

De Michele, R., and W. B. Frommer, Mitochondrial Biosensors, *Int. J. Biochem. Cell Biol.* 48, 39-44, 2014.

Deng, Z., Oses-Prieto, J. A., Kutschera, U., Tseng, T. S., Hao, L., Burlingame, A. L., Wang, Z. Y., and W. R. Briggs, Blue light-induced proteomic changes in etiolated Arabidopsis seedlings, *J Proteomics* 13, 2524-2533, 2014.

Dinneny, J. R., A gateway with a guard: how the endodermis regulates growth through hormone signaling, *Plant Sci.* 214, 14-19, 2014.

Duanmu, D., Rockwell, N.C., Casero Diaz-Cano, D., Dent, R., Gallagher, S. Yang, W. Niyogi, K., Merchant, S., Grossman, A.R., and C. Lagarias, Retrograde bilin signaling enables Chlamydomonas greening and phototrophic survival, *Proc Natl Acad Sci USA* 110: 3621-6, 2013.

Ehrhardt, D. W., and M. Bezanilla, Patterning the cell: membrane-cytoskeleton crosstalk, *Curr Opin Plant Biol.* 16 (no. 6), 675-7, 2013.

Emami, S., Yee, M. C., and J. R. Dinneny, A robust family of Golden Gate Agrobacterium vectors for plant synthetic biology, *Front. Plant Sci.* 4, Article no. 339, 2013.

Ewing, A., Brubaker, S., Somanchi, A., Yu, E., Rudenko, G., N. Reyes, Espina, K., Grossman, A., and S. Franklin, The 16s and 23s rDNA phylogenies of closely related Prototheca compared with auxenographic panels, *J. Phycol.*, Article first published online 10 JUL 2014, DOI: 10.1111/jpy.12209.

Fan, M., Bai, M. Y., Kim, J. G., Wang, T., Oh, E., Chen, L., Park, C. H., Son, S. H., Kim, S. K., Mudgett, M. B., and Z. Y. Wang, The bHLH transcription factor HBI1 mediates the trade-off between growth and pathogen-associated molecular pattern-triggered immunity in Arabidopsis, *Plant Cell* 26 (no. 2), 828-41, 2014.

Gomez-Garcia, M. R., Fazeli, F., Grote, A., Grossman, A. R., and D. Bhaya, The role of polyphosphate accumulation in *Synechococcus* sp., *J. Bacteriol* 195 (no. 15), 3309-19, 2013.

Grossman, A. R., and D. Bhaya, Phytochrome photoreceptors in cyanobacteria and the impact of light quality on phycobilisome biosynthesis, *Photobiological Sciences* online, 2013.

Guo, W. J., Nagy, R., Chen, S. Y., Frommer, W. B., and E. Martinoia, SWEET17, a facilitative fructose transporter in the tonoplast of Arabidopsis roots, *Plant Physiol.* 164, 777-789, 2014.

Heinzel, M., and A. R. Grossman, The GreenCut: Re-evaluation of physiological role of previously uncharacterized and potential novel proteins, *Photosyn Res.* 116, 427-36, 2013.

Heinnickel, M., Alric, J., Wittkopp, T., Yang, W., Catalanotti, C., Kim, R.G., Dent, R., Niyogi, K., Wollman, F-A., and A. R. Grossman, Novel thylakoid membrane GreenCut protein CPLD38 impacts accumulation of the cytochrome b6f complex and associated regulatory processes, *J Biol Chem.* 288, 7024-7036, 2013.

Held, N., Childs, L. M., Davison, M., Weitz, J. S., Whitaker, R. J., and D. Bhaya, CRISPR-cas systems to probe ecological diversity and host-viral interactions in *CRISPR Biology* Editors R. Barrangou and J. van der Oost, *Springer*, 2013.

Ho, C. H., and W. B. Frommer, Fluorescent sensors reporting conformational states, activity and regulation of the dual affinity nitrate transceptor CHL1/NRT1;1, *eLife* 3, e01917, 2014.

Höhner, R., Barth, J., Magneschi, L., Jaeger, D., Niehues, A., Bald, T., Grossman, A.R., Fufezan, C., M. Hippler, The metabolic status drives acclimation of iron deficiency responses in *Chlamydomonas reinhardtii* as revealed by proteomic-based hierarchical clustering and reverse genetics, *Mol Cell Proteomics* 12, 2774-90, 2013.

Hu, Y., Zhang, J., Jia, H. G., Sosso, D., Li, T., Frommer, W. B., Yang, B., White, F. F., Wang, N., and J. B. Jones, Lateral Organ Boundaries 1 is a disease susceptibility gene for citrus bacterial canker disease, *Proc. Natl. Acad. Sci. USA* 111, E521-E529, 2014.

Huang, T., Harrar, Y., Lin, C., Reinhart, B., Newell, N. R., Talavera-Rauh, F., Hokin, S. A., Barton, M. K. and R. A. Kerstetter, Arabidopsis KANADII acts as a transcriptional repressor by interacting with a specific cis-element and regulates auxin biosynthesis, transport and signaling in opposition to HD-ZIPIII factors, *Plant Cell* 26, 1-17, 2014.

Johnson, X., Steinbeck, J., Dent, R., Richaud, P., Ozawa, S.-I., Houille-Vernes, L., Petrousos, D., Rappaport, F., Grossman, A.R., Niyogi, K.K., Hippler, M., and J. Alric, (2014) PGR5-mediated Cyclic Electron Flow under ATP- or redox-limited conditions; A study of pgr5 Δ ATPase and pgr5 Δ rbcl mutants in *Chlamydomonas reinhardtii*, *Plant Physiol.* 165, 438-52, 2014.

Jones, A. M., Danielson, J. Å. H., Manoj-Kumar, S., Lanquar, V., Grossmann, G., and W. B. Frommer, Abscisic acid dynamics in roots detected with genetically encoded FRET sensors, *eLife* 3, e01741, 2014.

Jones, A. M., Xuan, Y., Xu, M., Wang, R. -S., Ho, C. -H., Lalonde, S., You, C. H., Sardi, M. I., Parsa, S. A., Smith-Valle, E., Su, T., Frazer, K. A., Pilot, G., Pratelli, R., Grossmann, G., Acharya, B. R., Hu, H. C., Engineer, C., Villiers, F., Ju, C., Takeda, K., Su, Z., Dong, Q., Assmann, S. M., Chen, J., Kwak, J. M., Schroeder, J. I., Albert, R., Rhee, S. Y., and W. B. Frommer, Border control – a membrane-linked interactome of Arabidopsis, *Science* 344, 711-716, 2014.

Khanna, R., J. Li, T. S. Tseng, J. Schroeder, D. Ehrhardt, and W. R. Briggs, COP1-mediated degradation of microtubules is required for stomatal function, *Molecular Plant* 7: doi: 10.1093/mp/ssu65, 2014.

Kim, M. H., Kim, Y., Kim, J. W., Lee, H. S., Lee, W. S., Kim, S. K., Wang, Z. Y., and S. H. Kim, Identification of arabidopsis bak1-associating receptor-like kinase 1 (bark1) and characterization of its gene expression and brassinosteroid-regulated root phenotypes, *Plant Cell Physiol.* 54 (no. 10), 1620-34, 2013.

Lanquar, V., Grossmann, G., Thomine, S., and W. B. Frommer, Dynamic imaging of cytosolic zinc in Arabidopsis roots combining FRET sensors and RootChip technology, *New Phytol.* 202, 198-208, 2014.

Li, L., Eichten, S. R., Shimizu, R., Petsch, K., Yeh, C. T., Wu, W., Chetoor, A. M., Givan, S. A., Cole, R. A., Fowler, J. E., Evans, M. M. S., Scanlon, M. J., Yu, J., Schnable, P. S., Timmermans, M. C., Springer, N. M., and G. J. Muehlbauer, Genome-wide discovery and characterization of maize long non-coding RNAs, *Genome Biol.* 15, R40, 2014.

Lin, I. W., Sosso, D., Chen, L. Q., Gase, K., Kim, S. G., Kessler, D., Klinkenberg, P., Qu, X. Q., Hou, B. H., Carter, C., Baldwin, I. T., and W. B. Frommer, The conserved sucrose transporter SWEET9 is key for nectar secretion in Eudicot flowers, *Nature* 508, 546-9, 2014.

Lindeboom, J. J., Nakamura, M., Hibbel, A., Shundyak, K., Gutierrez, R., Ketelaar, T., Emons, A. M., Mulder, B. M., Kirik, V., and D. W. Ehrhardt, A mechanism for reorientation of cortical microtubule arrays driven by microtubule severing, *Science*, doi: 10.1126/science.1245533, 2013.

Lipka, E., Gadeyne, A., Stockle, D., Zimmermann, S., De Jaeger, G., Ehrhardt, D. W., Kirik, V., Van Damme, D., and S. Muller, The Phragmoplast-Orienting Kinesin-12 Class Proteins Translate the Positional Information of the Preprophase Band to Establish the Cortical Division Zone in Arabidopsis thaliana, *Plant Cell* 26 (no. 6), 2617-2632, 2014.

Liu, T., Magnani, E., Huang, T., Reinhart, B. J., Kerstetter, R. and M. K. Barton, Of Blades and Branches: Understanding and Expanding the Arabidopsis ad/abaxial Regulatory Network Through Target Identification, Cold Spring Harbor Symposia on Quantitative Biology Volume 77, 31-46, 2012.

Lu, Y., Kermicle, J. L. and M. M. S Evans, Genetic and cellular analysis of cross-incompatibility in *Zea mays*, *Plant Reproduction* 27, 19-29, 2014.

Mackey, K.R.M., Caldiera, K., Grossman, A.R., Moran, D., Paytan, A. and M. Saito, Effect of temperature on photosynthesis and growth in diverse marine *Synechococcus* strains, *Plant Physiol.* 163, 815-29, 2013.

Magnani, E., De Klein, N., Nam, H. -I., Kim, J. -G., Pham, K. L., Fiume, E., Mudgett, M. B., and S. Y. Rhee, A comprehensive analysis of microProteins reveals their potentially widespread mechanism of transcriptional regulation, *Plant Physiol.* 165 (no. 1), 149-159, 2014.

Miranda, L.N., Hutchison, K., Grossman, A.R., and S. Brawley, Diversity and abundance of the bacterial community of the red macroalg *Porphyra umbilicalis*: Did bacterial farmers produce macroalgae? Analysis of the bacterial community associated with the red macroalga *Porphyra umbilicalis*, *PLoS One*. **8**, e58269, 2013.

Ni, W., Xu, S. L., Chalkley, R. J., Pham, T. N., Guan, S., Maltby, D. A., Burlingame, A. L., Wang, Z. Y., and P. H. Quail, Multisite light-induced phosphorylation of the transcription factor PIF3 is necessary for both its rapid degradation and concomitant negative feedback modulation of photoreceptor PHYB levels in *Arabidopsis*, *Plant Cell* **25** (no. 7), 2679-2698, 2013.

Ni, W. M., Xu, S. L., Tepperman, J. M., Stanley, D. J., Maltby, D. A., Gross, J. D., Burlingame, A. L., Wang, Z. Y., and P. H. Quail, A mutually assured destruction mechanism attenuates light signaling in *Arabidopsis*, *Science* **344** (no. 6188), 1160-1164, 2014.

Nowack, E., and A. R. Grossman, Microbial evolution under extreme conditions: Endosymbiosis. In *Microbial Evolution under Extreme Conditions in the series Life in Extreme Environments* (Editor-in-Chief Dirk Wagner), *De Gruyter Press*, In Press, 2014.

Oh, E., Zhu, J. Y., Bai, M. Y., and Z. Y. Wang, Cell elongation is regulated through a central circuit of interacting transcription factors in the *Arabidopsis* hypocotyl, *eLife* **3**, e03031, 2014.

Oh, E., Zhu, J. Y., Ryu, H., Hwang, I., and Z. Y. Wang, TOPLESS mediates brassinosteroid-induced transcriptional repression through interaction with BZR1, *Nat Commun* **5**, 4140, 2014.

Reinhart, B. J., Liu, T., Newell, N. R., Magnani, E., Huang, T., Kerstetter, R., Michaels, S. and M. K. Barton, Establishing a Framework for the Ad/Abaxial Regulatory Network of *Arabidopsis* – ascertaining targets of HD-ZIPIII and KANADI regulation, *Plant Cell* **25**, 3228-3249, 2013.

Rhee, S. Y., Interview with Seung Yon (Sue) Rhee, *Trends Plant Sci.* **19** (no. 4), 198-199, 2014.

Rhee, S. Y. and M. Mutwil, Towards revealing the functions of all genes in plants, *Trends Plant Sci.* **19** (no. 4), 212-221, 2014.

Schmollinger, S., Mühlhaus, T., Boyle, N. R., Blaby, I. K., Casero, D., Mettler, T., Moseley, J. L., Kropat, J., Sommer, F., Strenkert, D., Hemme, D., Pellegrini, M., Grossman, A. R., Stitt, M., Schroda, M., and S. S. Merchant, Analysis of nitrogen sparing mechanisms in *Chlamydomonas* operating on the transcriptome, proteome and photosynthetic metabolism, *Plant Cell* **26**, 1410-1435, 2014.

Sebastian, J., Wong, M. K., Tang, E., and J. R. Dinneny, Methods to Promote Germination of Dormant *Setaria viridis* seeds, *PLoS One* **9** (no. 4), e95109, 2014.

Stanga, J. P., S. M. Smith, W. R. Briggs, and D. C. Nelson, SUPPRESSOR OF MORE AXILLARY GROWTH 1 controls seed germination and seedling development in *Arabidopsis*, *Plant Physiol.* *163*, 318-330, 2013.

Subramanian, V., Dubini, A., Astling, D., Nag, A., Lunacek, M., Graf, P., Chang, C., Grossman, A. R., Posewitz, M., and M. Seibert, Profiling *Chlamydomonas* Metabolism Under Dark, Anoxic H₂-producing Conditions Using a Combined Proteomic, Transcriptomic and Metabolomic approach, *J Proteom Res*, In Submission, 2013.

Tolleter, D., Seneca, F.O., DeNofrio, J.C., Palumbi, S.R., Pringle, J.R., and A. R. Grossman, Evidence of coral bleaching independent of photosynthetic activity, *Curr Biol.* *23* (no. 18), 1782-6, 2013.

Ursell, T., Chau, R., Wisen, S., Bhaya, D., and K.C. Huang, Motility enhancement through surface modification is sufficient for cyanobacterial community organization during phototaxis, *PLoS Comp. Biol* *9* (no. 9), e1003205, 2013.

Wang, C., Shang, J. X., Chen, Q. X., Osés-Prieto, J. A., Bai, M. Y., Yang, Y., Yuan, M., Zhang, Y. L., Mu, C. C., Deng, Z., Wei, C. Q., Burlingame, A. L., Wang, Z. Y., and Y. Sun, Identification of BZR1-interacting proteins as potential components of the brassinosteroid signaling pathway in *Arabidopsis* through tandem affinity purification, *Mol Cell Proteomics*, *12* (no. 12), 3653-3665, 2013.

Wang, P. L., Bao, Y., Yee, M. C., Barrett, S. P., Hogan, G. J., Olsen, M. N., Dinneny, J. R., Brown, P. O., and J. Salzman, Circular RNA is expressed across the eukaryotic tree of life, *PLoS One* *9* (no. 3), e90859, 2014.

Wang, W., Li, G., Zhao, J., Chu, H., Lin, W., Zhang, D., Wang, Z. Y., and W. Liang, DWARF TILLER1, a WUSCHEL-related homeobox transcription factor, is required for tiller growth in rice, *PLoS Genet* *10* (no. 3), e1004154, 2014.

Wang, W., and Z. Y. Wang, At the intersection of plant growth and immunity, *Cell Host Microbe* *15*, 401-403, 2014.

Xiang, T., Nelson, W., Rodriguez, J., Tolleter, D., and A. R. Grossman, *Symbiodinium* transcriptome and global responses to changing light levels, *Plant J.* In Submission, 2014

Xiang, T., DeNofrio, J., Hambleton, E., Pringle, P., and A. R. Grossman, Isolation and growth of axenic *Symbiodinium* clades and infection of the model host *Aptasia pallida*, *J Phycol.* *49*, 447-458, 2013.

Xu, P., Xu, S. L., Li, Z. J., Tang, W., Burlingame, A. L., and Z. Y. Wang, A brassinosteroid-signaling kinase interacts with multiple receptor-like kinases in *Arabidopsis*, *Mol Plant* *7* (no. 2), 441-4, 2014.

Xuan, Y. H., Hu, Y. B., Chen, L. Q., Sosso, D., Ducat, D. C., Hou, B. H., and W. B. Frommer, Functional role of oligomerization for bacterial and plant sugar transporters of the SWEET family, *Proc. Natl. Acad. Sci. USA* 110, E3685-94, 2013.

Yang, W., Catalanotti, C., D'adamo, S., Wittkopp, T., Ingram-Smith, C. J., Mackinder, L., Miller, T., Smith, K. S., Jonikas, M., Grossman, A. R., and M. C. Posewitz, Multiple pathways for acetate production in *Chlamydomonas reinhardtii* during dark anoxia and the dominant role of chloroplasts in that production, *Plant Cell*, In Submission, 2014.

Youn, J. H., Kim, T. W., Kim, E. J., Bu, S., Kim, S. K., Wang, Z. Y., and T. W. Kim, Structural and functional characterization of arabidopsis GSK3-like kinase AtSK12, *Mol. Cells* 36 (no. 6), 564-570, 2013.

Zambon, A., Zoso, A., Luni, C., Frommer, W. B., and N. Elvassore, Determination of glucose metabolic fluxes in live myoblasts by microfluidic nanosensing and data analysis, *Integr. Biol.* 6, 277-88, 2014.

Zhang, R., Patena, W., Armbruster, U., Gang, S. S., Blum, S. R., and M. C. Jonikas, High-Throughput Genotyping of Green Algal Mutants Reveals Random Distribution of Mutagenic Insertion Sites and Endonucleolytic Cleavage of Transforming DNA, *Plant Cell* 26, 1398-1409, 2014.

DEPARTMENT OF TERRESTRIAL MAGNETISM

Here updated through September 1, 2014. The list is regularly updated on the DTM web site (<http://dtm.carnegiescience.edu>).

7306 Ahn, C. P., R. Alexandroff, C. A. Prieto, F. Anders, S. F. Anderson, T. Anderton, B. H. Andrews, E. Aubourg, S. Bailey, F. A. Bastien, J. E. Bautista, T. C. Beers, A. Beifiori, C. F. Bender, A. A. Berlind, F. Beutler, V. Bhardwaj, J. C. Bird, D. Bizyaev, C. H. Blake, M. R. Blanton, M. Blomqvist, J. J. Bochanski, A. S. Bolton, A. Borde, J. Bovy, A. S. Bradley, W. N. Brandt, D. Brauer, J. Brinkmann, J. R. Brownstein, N. G. Busca, W. Carithers, J. K. Carlberg, A. R. Carnero, M. A. Carr, C. Chiappini, S. D. Chojnowski, C.-H. Chuang, J. Comparat, J. R. Crepp, S. Cristiani, R. A. C. Croft, A. J. Cuesta, K. Cunha, L. N. da Costa, K. S. Dawson, N. De Lee, J. D. R. Dean, T. Delubac, R. Deshpande, S. Dhital, A. Ealet, G. L. Ebelke, E. M. Edmondson, D. J. Eisenstein, C. R. Epstein, S. Escoffier, M. Esposito, M. L. Evans, D. Fabbian, X. Fan, G. Favole, B. Femenía Castella, E. Fernández Alvar, D. Feuillet, N. Filiz Ak, H. Finley, S. W. Fleming, A. Font-Ribera, P. M. Frinchaboy, J. G. Galbraith-Frew, D. A. García-Hernández, A. E. García Pérez, J. Ge, R. Génova-Santos, B. A. Gillespie, L. Girardi, J. I. González Hernández, J. R. Gott III, J. E. Gunn, H. Guo, S. Halverson, P. Harding, D. Harris, S. Hasselquist, S. L. Hawley, M. Hayden, F. R. Hearty, A. Herrero Davó, S. Ho, D. W. Hogg, J. A. Holtzman, K. Honscheid, J. Huehnerhoff, I. I. Ivans, K. M. Jackson, P. Jiang, J. A. Johnson, K. Kinemuchi, D. Kirkby, M. A. Klaene, J.-P. Kneib, L. Koesterke, T.-W. Lan, D. Lang, J. M. Le Goff, A. Leauthaud, K. G. Lee, Y. S. Lee, D. C. Long, C. P. Loomis, S. Lucatello, R. H. Lupton, B. Ma, C. E. Mack III, S. Mahadevan, M. A. G. Maia, S. R. Majewski, E. Malanushenko, V. Malanushenko, A. Manchado, M. Manera, C. Maraston, D. Margala, S. L. Martell, K. L. Masters, C. K. McBride, I. D. McGreer, R. G. McMahan, B. Ménard, S. Mészáros, J. Miralda-Escudé, H. Miyatake, A. D. Montero-Dorta, F. Montesano, S. More, H. L. Morrison, D. Muna, J. A. Munn, A. D. Myers, D. C. Nguyen, R. C. Nichol, D. L. Nidever, P. Noterdaeme, S. E. Nuza, J. E. O'Connell, R. W. O'Connell, R. O'Connell, M. D. Olmstead, D. J. Oravetz, R. Owen, N. Padmanabhan, N. Palanque-Delabrouille, K. Pan, J. K. Parejko, P. Parihar, I. Pâris, J. Pepper, W. J. Percival, I. Pérez-Ràfols, H. D. Perottoni, P. Petitjean, M. M. Pieri, M. H. Pinsonneault, F. Prada, A. M. Price-Whelan, M. J. Raddick, M. Rahman, R. Rebolo, B. A. Reid, J. C. Richards, R. Riffel, A. C. Robin, H. J. Rocha-Pinto, C. M. Rockosi, N. A. Roe, A. J. Ross, N. P. Ross, G. Rossi, A. Roy, J. A. Rubiño-Martin, C. G. Sabiu, A. G. Sánchez, B. Santiago, C. Sayres, R. P. Schiavon, D. J. Schlegel, K. J. Schlesinger, S. J. Schmidt, D. P. Schneider, M. Schultheis, K. Sellgren, H.-J. Seo, Y. Shen, M. Shetrone, Y. P. Shu, A. E. Simmons, M. F. Skrutskie, A. Slosar, V. V. Smith, S. A. Snedden, J. S. Sobeck, F.

- Sobreira, K. G. Stassun, M. Steinmetz, M. A. Strauss, A. Streblyanska, N. Suzuki, M. E. C. Swanson, R. C. Terrien, A. R. Thakar, D. Thomas, B. A. Thompson, J. L. Tinker, R. Tojeiro, N. W. Troup, J. Vandenberg, M. Vargas Magaña, M. Viel, N. P. Vogt, D. A. Wake, B. A. Weaver, D. H. Weinberg, B. J. Weiner, M. White, S. D. M. White, J. C. Wilson, J. P. Wisniewski, W. M. Wood-Vasey, C. Yèche, D. G. York, O. Zamora, G. Zasowski, I. Zehavi, G.-B. Zhao, Z. Zheng, and G. Zhu, The Tenth Data Release of the Sloan Digital Sky Survey: first spectroscopic data from the SDSS-III Apache Point Observatory Galactic Evolution Experiment, *Astrophys. J. Suppl. Ser.* 211, 17, 2014.
- 7314 Alexander, C. M. O'D., G. D. Cody, Y. Kebukawa, R. Bowden, M. L. Fogel, A. L. D. Kilcoyne, L. R. Nittler, and C. D. K. Herd, Elemental, isotopic, and structural changes in Tagish Lake insoluble organic matter produced by parent body processes, *Meteorit. Planet. Sci.* 49, 503-525, 2014.
- 7258 Alexander, C. M. O'D., K. Howard, R. Bowden, and M. L. Fogel, The classification of CM and CR chondrites using bulk H, C and N abundances and isotopic compositions, *Geochim. Cosmochim. Acta* 123, 244-260, 2013.
- 7254 Allison, C.M., R. C. Porter, M. J. Fouch, and S. Semken, Seismic evidence for lithospheric modification beneath the Mojave Neovolcanic Province, southern California, *Geophys. Res. Lett.* 40, 5119-5124, doi:10.1002/grl.50993, 2013.
- Andrews-Hanna, J. C., J. Besserer, J. W. Head III, C. J. A. Howett, W. S. Kiefer, P. J. Lucey, P. J. McGovern, H. J. Melosh, G. A. Neumann, R. J. Phillips, P. M. Schenk, D. E. Smith, S. C. Solomon, and M. T. Zuber, Structure and evolution of the lunar Procellarum region as revealed by GRAIL gravity data, *Nature*, in press.
- 7363 Anglada-Escudé, G., P. Arriagada, M. Tuomi, M. Zechmeister, J. S. Jenkins, A. Ofir, S. Dreizler, E. Gerlach, C. J. Marvin, A. Reiners, S. V. Jeffers, R. P. Butler, S. S. Vogt, P. J. Amado, C. Rodríguez-López, Z. M. Berdiñas, J. Morin, J. D. Crane, S. A. Shtetman, I. B. Thompson, M. Díaz, E. Rivera, L. F. Sarmiento, and H. R. A. Jones, Two planets around Kapteyn's star: a cold and a temperate super-Earth orbiting the nearest halo red dwarf, *Mon. Not. Roy. Astron. Soc. Lett.* 443, L89-L93, 2014.
- 7299 Aponte, J. C., R. Tarozo, M. R. Alexandre, C. M. O'D. Alexander, S. B. Charnley, C. Hallmann, R. E. Summons, and Y. Huang, Chirality of meteoritic free and IOM-derived monocarboxylic acids and implications for prebiotic organic synthesis, *Geochim. Cosmochim. Acta* 131, 1-12, 2014.
- 7267 Bailey, V., T. Meshkat, M. Reiter, K. Morzinski, J. Males, K. Y. L. Su, P. M. Hinz, M. Kenworthy, D. Stark, E. Mamajek, R. Briguglio, L. M. Close, K. B. Follette, A. Puglisi, T. Rodigas, A. J. Weinberger, and M. Xompero, HD 106906 b: a planetary-mass companion outside a massive debris disk, *Astrophys. J. Lett.* 780, L4, 2014.

- 7343 Baines, P. G., and S. Sacks, Atmospheric internal waves generated by explosive volcanic eruptions, in *The Eruption of Soufrière Hills Volcano, Montserrat from 2000 to 2010*, G. Wadge, R. E. A. Robertson, and B. Voight, eds., pp. 153-167, Memoir No. 39, Geological Society, London, 2014.
- 7248 Ballmer, M. D., G. Ito, C. J. Wolfe, and S. C. Solomon, Double layering of a thermochemical plume in the upper mantle beneath Hawaii, *Earth Planet. Sci. Lett.* 376, 155-164, 2013.
- Bechtel, H. A., G. J. Flynn, C. Allen, D. Anderson, A. Ansari, S. Bajt, R. S. Bastien, N. Bassim, J. Borg, F. E. Brenker, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, A. L. Butterworth, H. Changela, P. Cloetens, A. M. Davis, R. Doll, C. Floss, D. R. Frank, Z. Gainsforth, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, B. Hudson, J. Huth, B. Hvide, A. Kearsley, A. J. King, B. Lai, J. Leitner, L. Lemelle, H. Leroux, A. Leonard, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, S. Schmitz, T. Schoonjans, G. Silversmit, A. S. Simionovici, V. A. Solé, R. Srama, T. Stephan, V. J. Sterken, J. Stodolna, R. M. Stroud, S. Sutton, M. Trieloff, P. Tsou, A. Tsuchiyama, T. Tyliczszak, B. Vekemans, L. Vincze, J. Von Korff, A. J. Westphal, N. Wordsworth, D. Zevin, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination III: infrared spectroscopic analysis of interstellar dust candidates., *Meteorit. Planet. Sci.*, in press.
- 7283 Benecchi, S. D., K. S. Noll, A. Thirouin, E. Ryan, W. M. Grundy, A. Verbiscer, A. Doressoundiram, D. Hestroffer, R. Beaton, D. Rabinowitz, and N. Chanover, The UT 7/8 February 2013 Sila-Nunam mutual event & future predictions, *Icarus* 229, 423-427, 2014.
- 7250 Bercovici, D., A. M. Jellinek, C. Michaut, D. C. Roman, and R. Morse, Volcanic tremors and magma wagging: gas flux interactions and forcing mechanism, *Geophys. J. Int.* 195, 1001-1022, 2013.
- 7255 Biller, B. A., M. C. Liu, Z. Wahhaj, E. L. Nielsen, T. L. Hayward, J. R. Males, A. Skemer, L. M. Close, M. Chun, C. Ftaclas, F. Clarke, N. Thatte, E. L. Shkolnik, I. N. Reid, M. Hartung, A. Boss, D. Lin, S. H. P. Alencar, E. de Gouveia Dal Pino, J. Gregorio-Hetem, and D. Toomey, The Gemini NICI Planet-Finding Campaign: the frequency of planets around young moving group stars, *Astrophys. J.* 777, 160, 2013.
- 7319 Black, B. A., E. H. Hauri, L. T. Elkins-Tanton, and S. M. Brown, Sulfur isotopic evidence for sources of volatiles in Siberian Traps magmas, *Earth Planet. Sci. Lett.* 394, 58-69, 2014.
- 7296 Black, B. A., J.-F. Lamarque, C. A. Shields, L. T. Elkins-Tanton, and J. T. Kiehl, Acid rain and ozone depletion from pulsed Siberian Traps magmatism, *Geology* 42, 67-70, 2014.

- 7378 Bonaccorso, A., S. Calvari, A. Linde, and S. Sacks, Eruptive processes leading to the most explosive lava fountain at Etna volcano: the 23 November 2013 episode, *Geophys. Res. Lett.* 41, 4912-4919, doi:10.1002/2014GL060623, 2014.
- 7243 Bonaccorso, A., G. Currenti, A. Linde, and S. Sacks, New data from borehole strainmeters to infer lava fountain sources (Etna 2011-2012), *Geophys. Res. Lett.* 40, 3579-3584, doi:10.1002/grl.50692, 2013.
- 7335 Boss, A. P., and F. J. Ciesla, The solar nebula, in *Treatise on Geochemistry, 2nd ed., Vol. 2: Planets, Asteroids, Comets and the Solar System*, A. M. Davis, ed., pp. 37-53, Elsevier, Oxford, 2014.
- 7346 Boss, A. P., and S. A. Keiser, Triggering collapse of the presolar dense cloud core and injecting short-lived radioisotopes with a shock wave. III. Rotating three dimensional cloud cores, *Astrophys. J.* 788, 20, 2014.
- Boss, A. P., and S. A. Keiser, Collapse and fragmentation of magnetic molecular cloud cores with the Enzo AMR MHD code. II. Prolate and oblate cores, *Astrophys. J.*, in press.
- 7347 Boss, A. P., A. J. Weinberger, G. Anglada-Escudé, I. B. Thompson, and R. Brahm, Habitable worlds around M dwarf stars: the CAPSCam Astrometric Planet Search, in *Formation, Detection, and Characterization of Extrasolar Habitable Planets*, N. Haghighipour, ed., pp. 183-188, International Astronomical Union Symposium 293, Cambridge University Press, Cambridge, 2014.
- Brenker, F. E., A. J. Westphal, L. Vincze, M. Burghammer, S. Schmitz, T. Schoonjans, G. Silversmit, B. Vekemans, C. Allen, D. Anderson, A. Ansari, S. S. Bajt, R. S. Bastien, N. Bassim, H. A. Bechtel, J. Borg, J. Bridges, Brownlee. D. E., M. Burchell, A. L. Butterworth, H. Changela, P. Cloetens, A. M. Davis, R. Doll, C. Floss, G. Flynn, P. Fougeray, D. R. Frank, Z. Gainsforth, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, B. Hudson, J. Huth, B. Hvide, A. Kearsley, A. J. King, B. Lai, J. Leitner, L. Lemelle, H. Leroux, A. Leonard, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, A. S. Simionovici, V. A. Solé, R. Srama, T. Stephan, V. J. Sterken, J. Stodolna, R. M. Stroud, S. Sutton, M. Tieloff, P. Tsou, A. Tsuchiyama, T. Tyliczszak, J. Von Korff, N. Wordsworth, D. Zevin, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination V: XRF analyses of interstellar dust candidates at ESRF ID13, *Meteorit. Planet. Sci.*, in press.
- 7320 Burgasser, A. J., M. Gillon, J. K. Faherty, J. Radigan, Ahmj Triaud, P. Plavchan, R. Street, E. Jehin, L. Delrez, and C. Opitom, A monitoring campaign for Luhman 16AB. I. Detection of resolved near-infrared spectroscopic variability, *Astrophys. J.* 785, 48, 2014.

- 7355 Burt, J., S. S. Vogt, R. P. Butler, R. Hanson, S. Meschiari, E. J. Rivera, G. W. Henry, and G. Laughlin, The Lick-Carnegie Exoplanet Survey: Gliese 687 b – a Neptune-mass planet orbiting a nearby red dwarf, *Astrophys. J.* 789, 114, 2014.
- Butterworth, A. L., A. J. Westphal, T. Tyliczszak, Z. Gainsforth, J. Stodolna, D. R. Frank, C. Allen, D. Anderson, A. Ansari, S. Bajt, R. K. Bastien, N. Bassim, H. A. Bechtel, J. Borg, F. E. Brenker, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, H. Changela, P. Cloetens, A. M. Davis, R. Doll, C. Floss, G. Flynn, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, B. Hudson, J. Huth, B. Hvide, A. Kearsley, A. J. King, B. Lai, J. Leitner, Lemelle L., H. Leroux, A. Leonard, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, S. Schmitz, T. Schoonjans, G. Silversmit, A. S. Simionovici, V. A. Solé, R. Srama, T. Stephan, V. J. Sterken, R. M. Stroud, S. Sutton, M. Trieloff, P. Tsou, A. Tsuchiyama, B. Vekemans, L. Vincze, J. Von Korff, N. Wordsworth, D. Zevin, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination IV: scanning transmission X-ray microscopy analyses of impact features in the Stardust Interstellar Dust Collector, *Meteorit. Planet. Sci.*, in press.
- 7293 Bybee, G. M., L. D. Ashwal, S. B. Shirey, M. Horan, T. Mock, and T. B. Andersen, Pyroxene megacrysts in Proterozoic anorthosites: implications for tectonic setting, magma source and magmatic processes at the Moho, *Earth Planet. Sci. Lett.* 389, 74-85, 2014.
- 7370 Bybee, G. M., L. D. Ashwal, S. B. Shirey, M. Horan, T. Mock, and T. B. Andersen, Debating the petrogenesis of Proterozoic anorthosites – Reply to comments by Vander Auwera et al. on “Pyroxene megacrysts in Proterozoic anorthosites: implications for tectonic setting, magma source and magmatic processes at the Moho,” *Earth Planet. Sci. Lett.* 401, 381-383, 2014.
- 7305 Byrne, P. K., C. Klimczak, A. M. C. Şengör, S. C. Solomon, T. R. Watters, and S. A. Hauck II, Mercury's global contraction much greater than earlier estimates, *Nature Geosci.* 7, 301-307, 2014.
- 7253 Callahan, M. P., P. A. Gerakines, M. G. Martin, Z. Peeters, and R. L. Hudson, Irradiated benzene ice provides clues to meteoritic organic chemistry, *Icarus* 226, 1201-1209, 2013.
- 7327 Carlberg, J. K., Rotational and radial velocities of 1.3-2.2 M_{\odot} red giants in open clusters, *Astron. J.* 147, 138, 2014.
- Carlberg, J. K., K. Cunha, and V. V. Smith, Lithium inventory of 2 M_{\odot} red clump stars: Is Li created during the He flash? in *18th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, G. van Belle and H. Harris, eds., Lowell Observatory, Flagstaff, Arizona, in press.

- 7338 Carlson, R. W., ed., *Treatise on Geochemistry, 2nd ed., Vol. 3: The Mantle and Core*, Elsevier, Oxford, 2014.
- 7341 Carlson, R. W., Thermal ionization mass spectrometry, in *Treatise on Geochemistry, 2nd ed., Vol. 15: Analytical Geochemistry/Inorganic Instrument Analysis*, 2nd ed., W. F. McDonough, ed., pp. 337-354, Elsevier, Oxford, 2014.
- _____ Carlson, R. W., Radiometric dating, in *Discoveries in Modern Science: Exploration, Invention, Technology*, J. Trefil, ed., Macmillan Reference USA, in press.
- _____ Carlson, R. W., Sm-Nd dating, in *Encyclopedia of Scientific Dating Methods*, W. J. Rink and J. Thompson, eds., Springer, in press.
- 7379 Carlson, R. W., L. E. Borg, A. M. Gaffney, and M. Boyet, Rb-Sr, Sm-Nd and Lu-Hf isotope systematics of the lunar Mg-suite: the age of the lunar crust and its relation to the time of Moon formation, *Phil. Trans. Roy. Soc. London A* 372, 20130246, 2014.
- 7365 Carlson, R. W., E. Garnero, T. M. Harrison, J. Li, M. Manga, W. F. McDonough, S. Mukhopadhyay, B. Romanowicz, D. Rubie, Q. Williams, and S. Zhong, How did early Earth become our modern world? *Annu. Rev. Earth Planet. Sci.* 42, 151-178, 2014.
- 7302 Chambers, J., A chronometer for Earth's age, *Nature* 508, 51-52, 2014.
- 7316 Chambers, J., Forming terrestrial planets, *Science* 344, 478-479, 2014.
- 7345 Chambers, J., and J. Mitton, *From Dust to Life: the Origin and Evolution of Our Solar System*, Princeton University Press, Princeton, N.J., 299 pp., 2013.
- 7301 Chambers, J. E., Giant planet formation with pebble accretion, *Icarus* 233, 83-100, 2014.
- 7336 Chambers, J. E., Planet formation, in *Treatise on Geochemistry, 2nd ed., Vol. 2: Planets, Asteroids, Comets and the Solar System*, A. M. Davis, ed., pp. 55-72, Elsevier, Oxford, 2014.
- 7287 Chen, C.-W., D. E. James, M. J. Fouch, and L. S. Wagner, Lithospheric structure beneath the High Lava Plains, Oregon, imaged by scattered teleseismic waves, *Geochem. Geophys. Geosyst.* 14, 4835-4848, doi:10.1002/ggge.20284, 2013.

- 7304 Close, L. M., K. Follette, J. R. Males, K. Morzinski, T. J. Rodigas, Hinz, P., Y.-L. Wu, D. Apai, J. Najita, A. Puglisi, S. Esposito, A. Riccardi, V. Bailey, M. Xompero, R. Briguglio, and A. Weinberger, Visible AO observations at H α for accreting young planets, in *Exploring the Formation and Evolution of Planetary Systems*, M. Booth, B. C. Matthews, and J. R. Graham, eds., pp. 32-33, International Astronomical Union Symposium 299, Cambridge University Press, Cambridge, 2014.
- 7278 Close, L. M., K. B. Follette, J. R. Males, A. Puglisi, M. Xompero, D. Apai, J. Najita, A. J. Weinberger, K. Morzinski, T. J. Rodigas, P. Hinz, V. Bailey, and R. Briguglio, Discovery of H α emission from the close companion inside the gap of transitional disk HD 142527, *Astrophys. J. Lett.* 781, L30, 2014.
- 7246 Currie, T., A. Burrows, N. Madhusudhan, M. Fukagawa, J. H. Girard, R. Dawson, R. Murray-Clay, S. Kenyon, M. Kuchner, S. Matsumura, R. Jayawardhana, J. Chambers, and B. Bromley, A combined Very Large Telescope and Gemini study of the atmosphere of the directly imaged planet, β Pictoris b, *Astrophys. J.* 776, 15, 2013.
- 7376 Danchi, W., V. Bailey, G. Bryden, D. Defrère, C. Haniff, P. Hinz, G. Kennedy, B. Mennesson, R. Millan-Gabet, G. Rieke, A. Roberge, E. Serabyn, A. Skemer, K. Stapelfeldt, A. Weinberger, and M. Wyatt, The LBTI hunt for observable signatures of terrestrial systems (HOSTS) survey: a key NASA science program on the road to exoplanet imaging missions, in *Adaptive Optics Systems IV*, E. Marchetti, L. M. Close, and J.-P. Véran, eds., paper 914607, SPIE Proceedings Vol. 9148, SPIE, Bellingham, Wash., 2014.
- 7265 Darling, J. R., D. E. Moser, L. M. Heaman, W. J. Davis, J. O'Neil, and R. Carlson, Eoarchean to Neoarchean evolution of the Nuvvuagittuq Supracrustal belt: new insights from U-Pb zircon geochronology, *Am. J. Sci.* 313, 844-876, 2013.
- 7357 Davidson, J., H. Busemann, L. R. Nittler, C. M. O. Alexander, F. R. Orthous-Daunay, I. A. Franchi, and P. Hoppe, Abundances of presolar silicon carbide grains in primitive meteorites determined by NanoSIMS, *Geochim. Cosmochim. Acta* 139, 248-266, 2014.
- _____ Davidson, J., D. L. Schrader, C. M. O'D. Alexander, D. S. Lauretta, H. Busemann, I. A. Franchi, R. C. Greenwood, H. C. Connolly, Jr., K. J. Domanik, and A. Verchovsky, Petrography, stable isotope compositions, microRaman spectroscopy and presolar components of RBT 04133: a reduced CV3 carbonaceous chondrite, *Meteorit. Planet. Sci.*, in press.
- _____ Davis, A. M., C. M. O'D. Alexander, F. J. Ciesla, M. Gounelle, A. N. Krot, M. I. Petaev, and T. Stephan, Samples of the Solar System: recent developments, in *Protostars and Planets VI*, H. Beuther et al., eds., University of Arizona Press, in press.

- 7268 Deshpande, R., C. H. Blake, C. F. Bender, S. Mahadevan, R. C. Terrien, J. K. Carlberg, G. Zasowski, J. Crepp, A. S. Rajpurohit, C. Reylé, D. L. Nidever, D. P. Schneider, C. A. Prieto, D. Bizyaev, G. Ebelke, S. W. Fleming, P. M. Frinchaboy, J. Ge, F. Hearty, J. Hernández, E. Malanushenko, V. Malanushenko, S. R. Majewski, R. Marchewski, D. Muna, D. Oravetz, K. Pan, R. P. Schiavon, M. Shetrone, A. Simmons, K. G. Stassun, J. C. Wilson, and J. P. Wisniewski, The SDSS-III APOGEE Radial Velocity Survey of M dwarfs. I. Description of the survey and science goals, *Astron. J.* 146, 156, 2013.
- 7321 Domingue, D. L., C. R. Chapman, R. M. Killen, T. H. Zurbuchen, J. A. Gilbert, M. Sarantos, M. Benna, J. A. Slavin, D. Schriver, P. M. Trávníček, T. M. Orlando, A. L. Sprague, D. T. Blewett, J. J. Gillis-Davis, W. C. Feldman, D. J. Lawrence, G. C. Ho, D. S. Ebel, L. R. Nittler, F. Vilas, C. M. Pieters, S. C. Solomon, C. L. Johnson, R. M. Winslow, J. Helbert, P. N. Peplowski, S. Z. Weider, N. Mouawad, N. R. Izenberg, and W. E. McClintock, Mercury's weather-beaten surface: understanding Mercury in the context of lunar and asteroidal space weathering studies, *Space Sci. Rev.* 180, 121-214, 2014.
- 7352 Druken, K. A., C. Kincaid, R. W. Griffiths, D. R. Stegman, and S. R. Hart, Plume-slab interaction: the Samoa-Tonga system, *Phys. Earth Planet. Inter.* 232, 1-14, 2014.
- 7366 Duke, G. I., R. W. Carlson, C. D. Frost, B. C. Hearn, Jr., and G. N. Eby, Continent-scale linearity of kimberlite-carbonatite magmatism, mid-continent North America, *Earth Planet. Sci. Lett.* 403, 1-14, 2014.
- 7344 Edmonds, M., M. C. S. Humphreys, E. H. Hauri, R. A. Herd, G. Wadge, H. Rawson, R. Ledden, M. Plail, J. Barclay, A. Aiuppa, T. E. Christopher, G. Giudice, and R. Guida, Pre-eruptive vapour and its role in controlling eruption style and longevity at Soufrière Hills Volcano, in *The Eruption of Soufrière Hills Volcano, Montserrat from 2000 to 2010*, G. Wadge, R. E. A. Robertson, and B. Voight, eds., pp. 291-315, Memoir No. 39, Geological Society, London, 2014.
- _____ Elgner, S., A. Stark, J. Oberst, M. E. Perry, M. T. Zuber, M. S. Robinson, and S. C. Solomon, Mercury's global shape and topography from limb imaging, *Planet. Space Sci.*, in press.
- 7264 Elkins-Tanton, L. T., Occam's origin of the Moon, *Nature Geosci.* 6, 996-998, 2013.
- 7360 Erkaev, N. V., H. Lammer, L. T. Elkins-Tanton, A. Stökl, P. Odert, E. Marcq, E. A. Dorfi, K. G. Kislyakova, Y. N. Kulikov, M. Leitzinger, and M. Güdel, Escape of the martian protoatmosphere and initial water inventory, *Planet. Space Sci.* 98, 106-119, 2014.
- 7361 Faherty, J. K., Y. Beletsky, A. J. Burgasser, C. Tinney, D. J. Osip, J. C. Filippazzo, and R. A. Simcoe, Signatures of cloud, temperature, and gravity from spectra of the closest brown dwarfs, *Astrophys. J.* 790, 90, 2014.

- 7311 Faherty, J. K., M. M. Shara, D. Zurek, G. Kanarek, and A. F. J. Moffat, Characterizing Wolf-Rayet stars in the near- and mid-infrared, *Astron. J.* 147, 115, 2014.
- _____ Flynn, G., S. Sutton, B. Lai, S. Wirick, C. Allen, D. Anderson, A. Ansari, S. Bajt, R. S. Bastien, N. Bassim, H. A. Bechtel, J. Borg, F. E. Brenker, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, A. L. Butterworth, H. Changela, P. Cloetens, A. M. Davis, R. Doll, C. Floss, D. Frank, Z. Gainsforth, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, B. Hudson, J. Huth, B. Hvide, A. Kearsley, A. J. King, J. Leitner, L. Lemelle, H. Leroux, A. Leonard, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, S. Schmitz, T. Schoonjans, G. Silversmit, A. Simionovici, V. A. Solé, R. Srama, T. Stephan, V. Sterken, J. Stodolna, R. M. Stroud, M. Trieloff, P. Tsou, A. Tsuchiyama, T. Tylliszczak, B. Vekemans, L. Vincze, J. Von Korff, A. J. Westphal, N. Wordsworth, D. Zevin, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination VII: synchrotron X-ray fluorescence analysis of six stardust interstellar candidates measured with the advanced photon source 2-ID-D microprobe, *Meteorit. Planet. Sci.*, in press.
- _____ Foustoukos, D. I., M. Bizimis, C. Frisby, and S. B. Shirey, Redox controls on Ni-Fe-PGE mineralization and Re/Os fractionation during serpentinization of abyssal peridotite, *Geochim. Cosmochim. Acta*, in press.
- _____ Frank, D. R., A. J. Westphal, M. E. Zolensky, Z. Gainsforth, A. L. Butterworth, R. K. Bastien, C. Allen, D. Anderson, A. Ansari, S. Bajt, N. Bassim, H. A. Bechtel, J. Borg, F. E. Brenker, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, H. Changela, P. Cloetens, A. M. Davis, R. Doll, C. Floss, G. Flynn, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, B. Hudson, J. Huth, B. Hvide, A. Kearsley, A. J. King, B. Lai, J. Leitner, L. Lemelle, H. Leroux, A. Leonard, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, S. Schmitz, T. Schoonjans, G. Silversmit, A. S. Simionovici, V. A. Solé, R. Srama, T. Stephan, V. J. Sterken, J. Stodolna, R. M. Stroud, S. Sutton, M. Trieloff, P. Tsou, A. Tsuchiyama, T. Tylliszczak, B. Vekemans, L. Vincze, J. Von Korff, N. Wordsworth, D. Zevin, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination II: curating the interstellar dust collector, picokeystones, and sources of impact tracks, *Meteorit. Planet. Sci.*, in press.
- 7307 Fu, R. R., and L. T. Elkins-Tanton, The fate of magmas in planetesimals and the retention of primitive chondritic crusts, *Earth Planet. Sci. Lett.* 390, 128-137, 2014.
- 7298 Gaetani, G. A., J. A. O'Leary, K. T. Koga, E. H. Hauri, E. F. Rose-Koga, and B. D. Monteleone, Hydration of mantle olivine under variable water and oxygen fugacity conditions, *Contrib. Mineral. Petrol.* 167, 965, 2014.

- 7313 Gagné, J., J. K. Faherty, K. Cruz, D. Lafrenière, R. Doyon, L. Malo, and É. Artigau, The coolest isolated brown dwarf candidate member of TWA, *Astrophys. J. Lett.* 785, L14, 2014.
- Gainsforth, Z., F. E. Brenker, A. S. Simionovici, S. Schmitz, M. Burghammer, A. L. Butterworth, P. Cloetens, L. Lemelle, J.-A. Sans Tresserras, T. Schoonjans, G. Silversmit, V. A. Solé, B. Vekemans, L. Vincze, A. J. Westphal, C. Allen, D. Anderson, A. Ansari, S. Bajt, R. K. Bastien, N. Bassim, H. A. Bechtel, J. Borg, J. Bridges, D. E. Brownlee, M. Burchell, H. Chagnela, A. M. Davis, R. Doll, C. Floss, G. Flynn, P. Fougeray, D. Frank, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, B. Hudson, J. Huth, B. Hvide, A. Kearsley, A. J. King, B. Lai, J. Leitner, H. Leroux, A. Leonard, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, R. Srama, T. Stephan, V. Sterken, J. Stodolna, R. M. Stroud, S. Sutton, M. Trieloff, P. Tsou, A. Tsuchiyama, T. Tyliczszak, J. Von Korff, D. Zevin, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination VIII: identification of crystalline material in two interstellar candidates, *Meteorit. Planet. Sci.*, in press.
- 7291 Geirsson, H., M. Rodgers, P. LaFemina, M. Witter, D. Roman, A. Muñoz, V. Tenorio, J. Alvarez, V. C. Jacobo, D. Nilsson, B. Galle, M. D. Feineman, T. Furman, and A. Morales, Multidisciplinary observations of the 2011 explosive eruption of Telica Volcano, Nicaragua: implications for the dynamics of low-explosivity ash eruptions, *J. Volcanol. Geotherm. Res.* 271, 55-69, 2014.
- 7351 Gershman, D. J., L. A. Fisk, G. Gloeckler, J. M. Raines, J. A. Slavin, T. H. Zurbuchen, and S. C. Solomon, The velocity distribution of pickup He⁺ measured at 0.3 AU by *MESSENGER*, *Astrophys. J.* 788, 124, 2014.
- 7281 Gershman, D. J., J. A. Slavin, J. M. Raines, T. H. Zurbuchen, B. J. Anderson, H. Korth, D. N. Baker, and S. C. Solomon, Magnetic flux pileup and plasma depletion in Mercury's subsolar magnetosheath, *J. Geophys. Res. Space Phys.* 118, 7181-7199, doi:10.1002/2013JA019244, 2013.
- Gershman, D. J., J. A. Slavin, J. M. Raines, T. H. Zurbuchen, B. J. Anderson, H. Korth, D. N. Baker, and S. C. Solomon, Ion kinetic properties in Mercury's pre-midnight plasma sheet, *Geophys. Res. Lett.*, in press.
- 7309 Goudge, T. A., J. W. Head, L. Kerber, D. T. Blewett, B. W. Denevi, D. L. Domingue, J. J. Gillis-Davis, K. Gwinner, J. Helbert, G. M. Holsclaw, N. R. Izenberg, R. L. Klima, W. E. McClintock, S. L. Murchie, G. A. Neumann, D. E. Smith, R. G. Strom, Z. Xiao, M. T. Zuber, and S. C. Solomon, Global inventory and characterization of pyroclastic deposits on Mercury: new insights into pyroclastic activity from *MESSENGER* orbital data, *J. Geophys. Res. Planets* 119, 635-658, doi:10.1002/2013JE004480, 2014.

- 7286 Greene, A. R., M. O. Garcia, A. J. Pietruszka, D. Weis, J. P. Marske, M. J. Vollinger, and J. Eiler, Temporal geochemical variations in lavas from Kīlauea's Pu'ū 'Ō'ō eruption (1983-2010): cyclic variations from melting of source heterogeneities, *Geochem. Geophys. Geosyst.* 14, 4849-4873, doi:10.1002/ggge.20285, 2013.
- 7362 Groopman, E., L. R. Nittler, T. Bernatowicz, and E. Zinner, NanoSIMS, TEM, and XANES studies of a unique presolar supernova graphite grain, *Astrophys. J.* 790, 9, 2014.
- 7342 Hardy, S. J., Open access publishing in the geosciences: case study of the Deep Carbon Observatory, in *Geoscience Information: Investing in the Future*, R. Tolliver, ed., pp. 73-81, GSIS Proceedings, Vol. 43, Geoscience Information Society, Alexandria, Virginia, 2013.
- 7333 Hautmann, S., F. Witham, T. Christopher, P. Cole, A. T. Linde, I. S. Sacks, and R. S. J. Sparks, Strain field analysis on Montserrat (W.I.) as tool for assessing permeable flow paths in the magmatic system of Soufrière Hills Volcano, *Geochem. Geophys. Geosyst.* 15, 676-690, doi:10.1002/2013GC005087, 2014.
- 7318 Heinonen, J. S., R. W. Carlson, T. R. Riley, A. V. Luttinen, and M. F. Horan, Subduction-modified oceanic crust mixed with a depleted mantle reservoir in the sources of the Karoo continental flood basalt province, *Earth Planet. Sci. Lett.* 394, 229-241, 2014.
- Helled, R., P. Bodenheimer, M. Podolak, A. Boley, F. Meru, S. Nayakshin, J. J. Fortney, L. Mayer, Y. Alibert, and A. Boss, Giant planet formation, evolution, and internal structure, in *Protostars and Planets VI*, H. Beuther et al., eds., University of Arizona Press, in press.
- 7349 Herzberg, C., R. A. Cabral, M. G. Jackson, C. Vidito, J. M. D. Day, and E. H. Hauri, Phantom Archean crust in Mangaia hotspot lavas and the meaning of heterogeneous mantle, *Earth Planet. Sci. Lett.* 396, 97-106, 2014.
- 7322 Hoard, D. W., K. S. Long, S. B. Howell, S. Wachter, C. S. Brinkworth, C. Knigge, J. E. Drew, P. Szkody, S. Kafka, K. Belle, D. R. Ciardi, C. S. Froning, G. T. van Belle, and M. L. Pretorius, Nova-like cataclysmic variables in the infrared, *Astrophys. J.* 786, 68, 2014.
- 7270 Honeycutt, R. K., S. Kafka, and J. W. Robertson, The long-term light curve of the cataclysmic variable V794 Aquilae, *Astron. J.* 147, 10, 2014.
- 7312 Honeycutt, R. K., J. Shears, S. Kafka, J. W. Robertson, and A. A. Henden, The 1991-2012 light curve of the old nova HR Lyrae, *Astron. J.* 147, 105, 2014.
- 7244 Hunter, D. A., B. G. Elmegreen, V. C. Rubin, A. Ashburn, T. Wright, G. I. G. Józsa, and C. Struve, Star formation in two luminous spiral galaxies, *Astron. J.* 146, 92, 2013.

- 7382 Imber, S. M., J. A. Slavin, S. A. Boardsen, B. J. Anderson, H. Korth, R. L. McNutt, Jr., and S. C. Solomon, MESSENGER observations of large dayside flux transfer events: do they drive Mercury's substorm cycle? *J. Geophys. Res. Space Phys.* 119, 5613-5623, doi:10.1002/2014JA019884, 2014.
- 7317 Inaba, S., Theoretical study of water cluster catalyzed decomposition of formic acid, *J. Phys. Chem. A* 118, 3026-3038, 2014.
- 7273 Izenberg, N. R., R. L. Klima, S. L. Murchie, D. T. Blewett, G. M. Holsclaw, W. E. McClintock, E. Malaret, C. Mauceri, F. Vilas, A. L. Sprague, J. Helbert, D. L. Domingue, J. W. Head III, T. A. Goudge, S. C. Solomon, C. A. Hibbitts, and M. D. Dyar, The low-iron, reduced surface of Mercury as seen in spectral reflectance by MESSENGER, *Icarus* 228, 364-374, 2014.
- 7271 Jackson, B., C. C. Stark, E. R. Adams, J. Chambers, and D. Deming, A survey for very short-period planets in the *Kepler* data, *Astrophys. J.* 779, 165, 2013.
- 7359 Jordán, A., R. Brahm, G. Á. Bakos, D. Bayliss, K. Penev, J. D. Hartman, G. Zhou, L. Mancini, M. Mohler-Fischer, S. Ciceri, B. Sato, Z. Csubry, M. Rabus, V. Suc, N. Espinoza, W. Bhatti, M. de Val Borro, L. Buchhave, B. Csák, T. Henning, B. Schmidt, T. G. Tan, R. W. Noyes, B. Béky, R. P. Butler, S. Shectman, J. Crane, I. Thompson, A. Williams, R. Martin, C. Contreras, J. Lázár, I. Papp, and P. Sári, HATS-4b: a dense hot Jupiter transiting a super metal-rich G star, *Astron. J.* 148, 29, 2014.
- 7297 Kendrick, M. A., M. G. Jackson, A. J. R. Kent, E. H. Hauri, P. J. Wallace, and J. Woodhead, Contrasting behaviours of CO₂, S, H₂O and halogens (F, Cl, Br, and I) in enriched-mantle melts from Pitcairn and Society seamounts, *Chem. Geol.* 370, 69-81, 2014.
- 7324 Kirkpatrick, J. D., A. Schneider, S. Fajardo-Acosta, C. R. Gelino, G. N. Mace, E. L. Wright, S. E. Logsdon, I. S. McLean, M. C. Cushing, M. F. Skrutskie, P. R. Eisenhardt, D. Stern, M. Baloković, A. J. Burgasser, J. K. Faherty, G. B. Lansbury, J. A. Rich, N. Skrzypek, J. W. Fowler, R. M. Cutri, F. J. Masci, T. Conrow, C. J. Grillmair, H. L. McCallon, C. A. Beichman, and K. A. Marsh, The ALLWISE Motion Survey and the quest for cold subdwarfs, *Astrophys. J.* 783, 122, 2014.
- _____ Klimczak, C., Geomorphology of lunar grabens requires igneous dikes at depth, *Geology*, in press.
- 7260 Klimczak, C., C. M. Ernst, P. K. Byrne, S. C. Solomon, T. R. Watters, S. L. Murchie, F. Preusker, and J. A. Balcerski, Insights into the subsurface structure of the Caloris basin, Mercury, from assessments of mechanical layering and changes in long-wavelength topography, *J. Geophys. Res. Planets* 118, 2030-2044, doi:10.1002/jgre.20157, 2013.

- 7259 Klimczak, C., and R. A. Schultz, Shear-enhanced compaction in dilating granular materials, *Int. J. Rock Mech. Min. Sci.* 64, 139-147, 2013.
- 7330 Korth, H., B. J. Anderson, D. J. Gershman, J. M. Raines, J. A. Slavin, T. H. Zurbuchen, S. C. Solomon, and R. L. McNutt, Jr., Plasma distribution in Mercury's magnetosphere derived from MESSENGER Magnetometer and Fast Imaging Plasma Spectrometer observations, *J. Geophys. Res. Space Phys.* 119, 2917-2932, doi:10.1002/2013JA019567, 2014.
- 7252 Lammer, H., M. Blanc, W. Benz, M. Fridlund, V. Coudé du Foresto, M. Güdel, H. Rauer, S. Udry, R.-M. Bonnet, M. Falanga, D. Charbonneau, R. Helled, W. Kley, J. Linsky, L. T. Elkins-Tanton, Y. Alibert, E. Chassefière, T. Encrenaz, A. P. Hatzes, D. Lin, R. Liseau, W. Lorenzen, and S. N. Raymond, The science of exoplanets and their systems, *Astrobiology* 13, 793-813, 2013.
- 7380 Lawrence, D. J., W. C. Feldman, J. O. Goldsten, P. N. Peplowski, D. J. Rodgers, and S. C. Solomon, Detection and characterization of 0.5-8 MeV neutrons near Mercury: evidence for a solar origin, *J. Geophys. Res. Space Phys.* 119, 5150-5171, doi:10.1002/2013JA019037, 2014.
- 7300 Lorenz, R. D., and B. K. Jackson, Declining rock movement at Racetrack Playa, Death Valley National Park: an indicator of climate change? *Geomorphology* 211, 116-120, 2014.
- 7329 Luhman, K. L., and S. S. Sheppard, Characterization of high proper motion objects from the *Wide-field Infrared Survey Explorer*, *Astrophys. J.* 787, 126, 2014.
- 7374 Males, J. R., L. M. Close, O. Guyon, K. M. Morzinski, A. Puglisi, P. Hinz, K. B. Follette, J. D. Monnier, V. Tolls, T. J. Rodigas, A. Weinberger, A. Boss, D. Kopon, Y.-L. Wu, S. Esposito, A. Riccardi, M. Xompero, R. Briguglio, and E. Pinna, Direct imaging of exoplanets in the habitable zone with adaptive optics, in *Adaptive Optics Systems IV*, E. Marchetti, L. M. Close, and J.-P. Véran, eds., paper 914820, SPIE Proceedings Vol. 9148, SPIE, Bellingham, Wash., 2014.
- 7323 Males, J. R., L. M. Close, K. M. Morzinski, Z. Wahhaj, M. C. Liu, A. J. Skemer, D. Kopon, K. B. Follette, A. Puglisi, S. Esposito, A. Riccardi, E. Pinna, M. Xompero, R. Briguglio, B. A. Biller, E. L. Nielsen, P. M. Hinz, T. J. Rodigas, T. L. Hayward, M. Chun, C. Ftaclas, D. W. Toomey, and Y. L. Wu, Magellan Adaptive Optics first-light observations of the exoplanet β Pic b. I. Direct imaging in the far-infrared optical with MagAO+VisAO and in the near-IR with NICI, *Astrophys. J.* 786, 32, 2014.
- 7272 Mandler, B. E., and L. T. Elkins-Tanton, The origin of eucrites, diogenites, and olivine diogenites: magma ocean crystallization and shallow magma chamber processes on Vesta, *Meteorit. Planet. Sci.* 48, 2333-2349, 2013.

- 7367 Marchi, S., W. F. Bottke, L. T. Elkins-Tanton, M. Bierhaus, K. Wuennemann, A. Morbidelli, and D. A. Kring, Widespread mixing and burial of Earth's Hadean crust by asteroid impacts, *Nature* 511, 578-582, 2014.
- 7290 Marcy, G. W., H. Isaacson, A. W. Howard, J. F. Rowe, J. M. Jenkins, S. T. Bryson, D. W. Latham, S. B. Howell, T. N. Gautier III, N. M. Batalha, L. Rogers, D. Ciardi, D. A. Fischer, R. L. Gilliland, H. Kjeldsen, J. Christensen-Dalsgaard, D. Huber, W. J. Chaplin, S. Basu, L. A. Buchhave, S. N. Quinn, W. J. Borucki, D. G. Koch, R. Hunter, D. A. Caldwell, J. Van Cleve, R. Kolbl, L. M. Weiss, E. Petigura, S. Seager, T. Morton, J. A. Johnson, S. Ballard, C. Burke, W. D. Cochran, M. Endl, P. MacQueen, M. E. Everett, J. J. Lissauer, E. B. Ford, G. Torres, F. Fressin, T. M. Brown, J. H. Steffen, D. Charbonneau, G. S. Basri, D. D. Sasselov, J. Winn, R. Sanchis-Ojeda, J. Christiansen, E. Adams, C. Henze, A. Dupree, D. C. Fabrycky, J. J. Fortney, J. Tarter, M. J. Holman, P. Tenenbaum, A. Shporer, P. W. Lucas, W. F. Welsh, J. A. Orosz, T. R. Bedding, T. L. Campante, G. R. Davies, Y. Elsworth, R. Handberg, S. Hekker, C. Karoff, S. D. Kawaler, M. N. Lund, M. Lundkvist, T. S. Metcalfe, A. Miglio, V. S. Aguirre, D. Stello, T. R. White, A. Boss, E. Devore, A. Gould, A. Prsa, E. Agol, T. Barclay, J. Coughlin, E. Brugamyer, F. Mullally, E. V. Quintana, M. Still, S. E. Thompson, D. Morrison, J. D. Twicken, J. M. Désert, J. Carter, J. R. Crepp, G. Hébrard, A. Santerne, C. Moutou, C. Sobeck, D. Hudgins, M. R. Haas, P. Robertson, J. Lillo-Box, and D. Barrado, Masses, radii, and orbits of small *Kepler* planets: the transition from gaseous to rocky planets, *Astrophys. J. Suppl. Ser.* 210, 20, 2014.
- 7337 McCoy, T. J., and L. R. Nittler, Mercury, in *Treatise on Geochemistry, 2nd ed., Vol. 2: Planets, Asteroids, Comets and the Solar System*, A. M. Davis, ed., pp. 119-126, Elsevier, Oxford, 2014.
- 7353 McCubbin, F. M., C. K. Shearer, P. V. Burger, E. H. Hauri, J. Wang, S. M. Elardo, and J. J. Papike, Volatile abundances of coexisting merrillite and apatite in the martian meteorite Shergotty: implications for merrillite in hydrous magmas, *Am. Mineral.* 99, 1347-1354, 2014.
- 7249 McNutt, R. L., Jr., S. C. Solomon, P. D. Bedini, B. J. Anderson, D. T. Blewett, L. G. Evans, R. E. Gold, S. M. Krimigis, S. L. Murchie, L. R. Nittler, R. J. Phillips, L. M. Prockter, J. A. Slavin, M. T. Zuber, E. J. Finnegan, D. G. Grant, and the MESSENGER Team, MESSENGER at Mercury: early orbital operations, *Acta Astronaut.* 93, 509-515, 2014.
- 7256 Miljković, K., M. A. Wieczorek, G. S. Collins, M. Laneuville, G. A. Neumann, H. J. Melosh, S. C. Solomon, R. J. Phillips, D. E. Smith, and M. T. Zuber, Asymmetric distribution of lunar impact basins caused by variations in target properties, *Science* 342, 724-726, 2013.

- 7375 Morzinski, K. M., L. M. Close, J. R. Males, D. Kopon, P. M. Hinz, S. Esposito, A. Riccardi, A. Puglisi, E. Pinna, R. Briguglio, M. Xompero, F. Quirós-Pacheco, V. Bailey, K. B. Follette, T. J. Rodigas, Y.-L. Wu, C. Arcidiacono, J. Argomedo, L. Busoni, T. Hare, A. Uomoto, and A. Weinberger, MagAO: status and on-sky performance of the Magellan adaptive optics system, in *Adaptive Optics Systems IV*, E. Marchetti, L. M. Close, and J.-P. Véran, eds., paper 914804, SPIE Proceedings Vol. 9148, SPIE, Bellingham, Wash., 2014.
- 7277 Mueller, T., E. B. Watson, D. Trail, M. Wiedenbeck, J. Van Orman, and E. H. Hauri, Diffusive fractionation of carbon isotopes in γ -Fe: experiment, models and implications for early solar system processes, *Geochim. Cosmochim. Acta* 127, 57-66, 2014.
- 7368 Newcombe, M. E., A. Fabbrizio, Y. Zhang, C. Ma, M. Le Voyer, Y. Guan, J. M. Eiler, A. E. Saal, and E. M. Stolper, Chemical zonation in olivine-hosted melt inclusions, *Contrib. Mineral. Petrol.* 168, 1030, 2014.
- 7245 Nielsen, E. L., M. C. Liu, Z. Wahhaj, B. A. Biller, T. L. Hayward, L. M. Close, J. R. Males, A. J. Skemer, M. Chun, C. Ftaclas, S. H. P. Alencar, P. Artymowicz, A. Boss, F. Clarke, E. de Gouveia Dal Pino, J. Gregorio-Hetem, M. Hartung, S. Ida, M. Kuchner, D. N. C. Lin, I. N. Reid, E. L. Shkolnik, M. Tecza, N. Thatte, and D. W. Toomey, The Gemini NICI Planet-Finding Campaign: the frequency of giant planets around young B and A stars, *Astrophys. J.* 776, 4, 2013.
- 7295 Nittler, L. R., NEAR-Shoemaker at Eros: the first detailed exploration of an asteroid, *Elements* 10, 51-52, 2014.
- 7358 Novella, D., D. J. Frost, E. H. Hauri, H. Bureau, C. Raepsaet, and M. Roberge, The distribution of H₂O between silicate melt and nominally anhydrous peridotite and the onset of hydrous melting in the deep upper mantle, *Earth Planet. Sci. Lett.* 400, 1-13, 2014.
- 7332 Padovan, S., J.-L. Margot, S. A. Hauck II, W. B. Moore, and S. C. Solomon, The tides of Mercury and possible implications for its interior structure, *J. Geophys. Res. Planets* 119, 850-866, doi:10.1002/2013JE004459, 2014.
- 7257 Patten, C., S.-J. Barnes, E. A. Mathez, and F. E. Jenner, Partition coefficients of chalcophile elements between sulfide and silicate melts and the early crystallization history of sulfide liquid: LA-ICP-MS analysis of MORB sulfide droplets, *Chem. Geol.* 358, 170-188, 2013.
- 7292 Peale, S. J., J.-L. Margot, S. A. Hauck II, and S. C. Solomon, Effect of core-mantle and tidal torques on Mercury's spin axis orientation, *Icarus* 231, 206-220, 2014.
- 7339 Pearson, D. G., D. Canil, and S. B. Shirey, Mantle samples included in volcanic rocks: xenoliths and diamonds, in *Treatise on Geochemistry, 2nd ed., Vol. 3: The Mantle and Core*, A. M. Davis, ed., pp. 169-253, Elsevier, Oxford, 2014.

- 7356 Penev, K., M. Zhang, and B. Jackson, POET: a model for planetary orbital evolution due to tides on evolving stars, *Publ. Astron. Soc. Pacific* 126, 553-564, 2014.
- 7285 Peng, H., G. Kitagawa, T. Takanami, and N. Matsumoto, State-space modeling for seismic signal analysis, *Appl. Math. Modell.* 38, 738-746, 2014.
- 7275 Peplowski, P. N., L. G. Evans, K. R. Stockstill-Cahill, D. J. Lawrence, J. O. Goldsten, T. J. McCoy, L. R. Nittler, S. C. Solomon, A. L. Sprague, R. D. Starr, and S. Z. Weider, Enhanced sodium abundance in Mercury's north polar region revealed by the MESSENGER Gamma-Ray Spectrometer, *Icarus* 228, 86-95, 2014.
- _____ Person, M., T. Brothers, S. Sallum, A. Bosh, A. Gulbis, A. Zangari, C. Zuluaga, S. Levine, L. Bright, S. Sheppard, T. Tilleman, H. Burgiel, and J. Elliot, Constraint on the size of KBO (50000) Quaoar from a single chord occultation, *Icarus*, in press.
- 7334 Porter, R. C., M. J. Fouch, and N. C. Schmerr, Dynamic lithosphere within the Great Basin, *Geochem. Geophys. Geosyst.* 15, 1128-1146, doi:10.1002/2013GC005151, 2014.
- _____ Postberg, F., J. K. Hillier, S. P. Armes, S. Bugiel, A. Butterworth, D. Dupin, L. A. Fielding, S. Fujii, Z. Gainsforth, E. Grün, Y. W. Li, R. Srama, V. Sterken, J. Stodolna, M. Tieloff, A. Westphal, C. Achilles, C. Allen, A. Ansari, S. Bajt, N. Bassim, R. K. Bastien, H. A. Bechtel, J. Borg, F. Brenker, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, H. Changela, P. Cloetens, A. Davis, R. Doll, C. Floss, G. Flynn, D. Frank, P. R. Heck, P. Hoppe, G. Huss, J. Huth, A. Kearsley, A. J. King, B. Lai, J. Leitner, L. Lemelle, A. Leonard, H. Leroux, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, S. Schmitz, T. Schoonjans, K. Schreiber, G. Silversmit, A. Simionovici, V. A. Solé, F. Stadermann, T. Stephan, R. M. Stroud, S. Sutton, P. Tsou, A. Tsuchiyama, T. Tyliczszak, B. Vekemans, L. Vincze, D. Zevin, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination IX: high-speed interstellar dust analog capture in Stardust flight-spore aerogel, *Meteorit. Planet. Sci.*, in press.
- _____ Raines, J. M., D. J. Gershman, J. A. Slavin, T. H. Zurbuchen, H. Korth, B. J. Anderson, and S. C. Solomon, Structure and dynamics of Mercury's magnetospheric cusp: MESSENGER measurements of protons and planetary ions, *J. Geophys. Res. Space Phys.*, in press.
- _____ Ramírez, I., J. Meléndez, J. Bean, M. Asplund, M. Bedell, T. Monroe, L. Casagrande, L. Schirbel, S. Dreizler, J. Teske, M. Tucci Maia, A. Alves-Brito, and P. Baumann, The Solar Twin Planet Search. I. Fundamental parameters of the stellar sample, *Astron. Astrophys.*, in press.

- Reipurth, B., C. J. Clarke, A. P. Boss, S. P. Goodwin, L. F. Rodriguez, K. G. Stassun, A. Tokovinin, and H. Zinnecker, Formation and early evolution of binary and multiple systems, in *Protostars and Planets VI*, H. Beuther et al., eds., University of Arizona Press, in press.
- 7261 Rodgers, M., D. C. Roman, H. Geirsson, P. LaFemina, A. Muñoz, C. Guzman, and V. Tenorio, Seismicity accompanying the 1999 eruptive episode at Telica Volcano, Nicaragua, *J. Volcanol. Geotherm. Res.* 265, 39-51, 2013.
- 7315 Rodigas, T. J., J. H. Debes, P. M. Hinz, E. E. Mamajek, M. J. Pecaut, T. Currie, V. Bailey, D. Defrere, R. J. De Rosa, J. M. Hill, J. Leisenring, G. Schneider, A. J. Skemer, M. Skrutskie, V. Vaitheeswaran, and K. Ward-Duong, Does the debris disk around HD 32297 contain cometary grains? *Astrophys. J.* 783, 21, 2014.
- 7373 Rodigas, T. J., K. B. Follette, A. Weinberger, L. Close, and D. C. Hines, Polarized light imaging of the HD 142527 transition disk with the Gemini Planet Imager: dust around the close-in companion, *Astrophys. J. Lett.* 791, L37, 2014.
- 7276 Rodigas, T. J., R. Malhotra, and P. M. Hinz, Predictions for shepherding planets in scattered light images of debris disks, *Astrophys. J.* 780, 65, 2014.
- 7308 Scheinberg, A., L. T. Elkins-Tanton, and S. J. Zhong, Timescale and morphology of Martian mantle overturn immediately following magma ocean solidification, *J. Geophys. Res. Planets* 119, 454-467, doi:10.1002/2013JE004496, 2014.
- 7279 Schneider, A. C., M. C. Cushing, J. D. Kirkpatrick, G. N. Mace, C. R. Gelino, J. K. Faherty, S. Fajardo-Acosta, and S. S. Sheppard, Discovery of the young L dwarf WISE J174102.78-464225.5, *Astron. J.* 147, 34, 2014.
- Shahar, A., V. J. Hillgren, M. F. Horan, J. Mesa-Garcia, L. A. Kaufman, and T. D. Mock, Sulfur-controlled iron isotope fractionation experiments of core formation in planetary bodies, *Geochim. Cosmochim. Acta*, in press.
- 7289 Shirey, S. B., and J. E. Shigley, Recent advances in understanding the geology of diamonds, *Gems Gemol.* 49 (no. 4), 188-222, 2013.

- Simionovici, A. S., L. Lemelle, P. Cloetens, V. A. Solé, J.-A. Sans Tresseras, A. L. Butterworth, A. J. Westphal, Z. Gainsforth, J. Stodolna, C. Allen, D. Anderson, A. Ansari, S. Bajt, N. Bassim, R. K. Bastien, H. A. Bechtel, J. Borg, F. E. Brenker, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, H. Changela, A. M. Davis, R. Doll, C. Floss, G. Flynn, D. R. Frank, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, B. Hudson, J. Huth, B. Hvide, A. Kearsley, A. J. King, B. Lai, J. Leitner, A. Leonard, H. Leroux, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, S. Schmitz, T. Schoonjans, G. Silversmit, R. Srama, T. Stephan, V. J. Sterken, R. M. Stroud, S. Sutton, M. Tieloff, P. Tsou, A. Tsuchiyama, T. Tyliczszak, B. Vekemans, L. Vincze, J. Von Korff, N. Wordsworth, D. Zevin, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination VI: quantitative elemental analysis by synchrotron X-ray fluorescence nanoimaging of eight impact features in aerogel, *Meteorit. Planet. Sci.*, in press.
- Slavín, J. A., G. A. DiBraccio, D. J. Gershman, S. M. Imber, G. K. Poh, J. M. Raines, T. H. Zurbuchen, X. Jia, D. N. Baker, K.-H. Glassmeier, S. A. Livi, S. A. Boardsen, T. A. Cassidy, M. Sarantos, T. Sundberg, A. Masters, C. L. Johnson, R. M. Winslow, B. J. Anderson, H. Korth, R. L. McNutt, Jr., and S. C. Solomon, MESSENGER observations of Mercury dayside magnetosphere under extreme solar wind conditions, *J. Geophys. Res. Space Phys.*, in press.
- 7294 Smets, B., N. d'Oreye, F. Kervyn, M. Kervyn, F. Albino, S. R. Arellano, M. Bagalwa, C. Balagizi, S. A. Carn, T. H. Darrah, J. Fernández, B. Galle, P. J. González, E. Head, K. Karume, D. Kavotha, F. Lukaya, N. Mashagiro, G. Mavonga, P. Norman, E. Osodundu, J. L. G. Palleró, J. F. Prieto, S. Samsonov, M. Syauswa, D. Tedesco, K. Tiampo, C. Wauthier, and M. M. Yalire, Detailed multidisciplinary monitoring reveals pre- and co-eruptive signals at Nyamulagira volcano (North Kivu, Democratic Republic of Congo), *Bull. Volcanol.* 76, 787, 2014.
- 7369 Snoke, J. A., L. M. Warren, and D. E. James, High-resolution phase-velocity maps using data from an earthquake recorded at regional distances by a dense broad-band seismic network, *Geophys. J. Int.* 198, 1504-1513, 2014.
- 7354 Stark, C. C., G. Schneider, A. J. Weinberger, J. H. Debes, C. A. Grady, H. Jang-Condell, and M. J. Kuchner, Revealing asymmetries in the HD 181327 debris disk: a recent massive collision or interstellar medium warping, *Astrophys. J.* 789, 58, 2014.
- 7269 Starkey, N. A., I. A. Franchi, and C. M. O'D. Alexander, A Raman spectroscopic study of organic matter in interplanetary dust particles and meteorites using multiple wavelength laser excitation, *Meteorit. Planet. Sci.* 48, 1800-1822, 2013.

- Stroud, R. M., C. Allen, A. Ansari, D. Anderson, S. Bajt, N. Bassim, R. S. Bastien, H. A. Bechtel, J. Borg, F. E. Brenker, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, A. L. Butterworth, H. Changela, P. Cloetens, A. M. Davis, R. Doll, C. Floss, G. Flynn, D. Frank, Z. Gainsforth, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, J. Huth, B. Hvide, A. Kearsley, A. J. King, P. Kotula, B. Lai, J. Leitner, L. Lemelle, H. Leroux, A. Leonard, R. Lettieri, W. Marchant, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, S. Schmitz, T. Schoonjans, K. Schreiber, G. Silversmit, A. Simionovici, V. A. Solé, R. Srama, T. Stephan, V. Sterken, J. Stodolna, S. Sutton, M. Trieloff, P. Tsou, A. Tsuchiyama, T. Tyliczszak, B. Vekemans, L. Vincze, A. J. Westphal, J. Von Korff, D. Zevin, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination XI: identification and elemental analysis of impact craters on Al foils from the Stardust Interstellar Dust Collector, *Meteorit. Planet. Sci.*, in press.
- 7282 Sundberg, T., S. A. Boardsen, J. A. Slavin, V. M. Uritsky, B. J. Anderson, H. Korth, D. J. Gershman, J. M. Raines, T. H. Zurbuchen, and S. C. Solomon, Cyclic reformation of a quasi-parallel bow shock at Mercury: MESSENGER observations, *J. Geophys. Res. Space Phys.* *118*, 6457-6464, doi:10.1002/jgra.50602, 2013.
- 7263 Takigawa, A., S. Tachibana, G. R. Huss, K. Nagashima, K. Makide, A. N. Krot, and H. Nagahara, Morphology and crystal structures of solar and presolar Al₂O₃ in unequilibrated ordinary chondrites, *Geochim. Cosmochim. Acta* *124*, 309-327, 2014.
- 7303 Trujillo, C. A., and S. S. Sheppard, A Sedna-like body with a perihelion of 80 astronomical units, *Nature* *507*, 471-474, 2014.
- 7340 van Keken, P. E., C. J. Ballentine, and E. H. Hauri, Convective mixing in the Earth's mantle, in *Treatise on Geochemistry, 2nd ed., Vol. 3: The Mantle and Core*, A. M. Davis, ed., pp. 509-525, Elsevier, Oxford, 2014.
- 7328 Vogt, S. S., R. P. Butler, E. J. Rivera, R. Kibrick, J. Burt, R. Hanson, S. Meschiari, G. W. Henry, and G. Laughlin, A four-planet system orbiting the K0V star HD 141399, *Astrophys. J.* *787*, 97, 2014.
- 7331 Vogt, S. S., M. Radovan, R. Kibrick, R. P. Butler, B. Alcott, S. Allen, P. Arriagada, M. Bolte, J. Burt, J. Cabak, K. Chloros, D. Cowley, W. Deich, B. Dupraw, W. Earthman, H. Epps, S. Faber, D. Fischer, E. Gates, D. Hilyard, B. Holden, K. Johnston, S. Keiser, D. Kanto, M. Katsuki, L. Laiterman, K. Lanclos, G. Laughlin, J. Lewis, C. Lockwood, P. Lynam, G. Marcy, M. McLean, J. Miller, T. Misch, M. Peck, T. Pfister, A. Phillips, E. Rivera, D. Sandford, M. Saylor, R. Stover, M. Thompson, B. Walp, J. Ward, J. Wareham, M. Z. Wei, and C. Wright, APF—the Lick Observatory Automated Planet Finder, *Publ. Astron. Soc. Pacific* *126*, 359-379, 2014.

- 7266 Wang, C., J. Wang, Z. Yang, C. Mao, and J. Ji, Characteristics of lead geochemistry and the mobility of Pb isotopes in the system of pedogenic rock-pedosphere-irrigated riverwater-cereal-atmosphere from the Yangtze River delta region, China, *Chemosphere* 93, 1927-1935, 2013.
- 7242 Ward, K. M., R. C. Porter, G. Zandt, S. L. Beck, L. S. Wagner, E. Minaya, and H. Tavera, Ambient noise tomography across the Central Andes, *Geophys. J. Int.* 194, 1559-1573, 2013. [Correction published in *Geophys. J. Int.* 196, 1264-1265, 2014.]
- 7350 Warren, J. M., and E. H. Hauri, Pyroxenes as tracers of mantle water variations, *J. Geophys. Res. Solid Earth* 119, 1851-1881, doi:10.1002/2013jb010328, 2014.
- 7288 Wauthier, C., D. C. Roman, and M. P. Poland, Moderate-magnitude earthquakes induced by magma reservoir inflation at Kīlauea Volcano, Hawai‘i, *Geophys. Res. Lett.* 40, 5366-5370, doi:10.1002/2013GL058082, 2013.
- 7284 Weider, S. Z., K. H. Joy, I. A. Crawford, B. J. Kellett, B. M. Swinyard, and C. J. Howe, Western Oceanus Procellarum as seen by C1XS on Chandrayaan-1, *Icarus* 229, 254-262, 2014.
- 7310 Weider, S. Z., L. R. Nittler, R. D. Starr, T. J. McCoy, and S. C. Solomon, Variations in the abundance of iron on Mercury's surface from MESSENGER X-Ray Spectrometer observations, *Icarus* 235, 170-186, 2014.
- 7348 Weinberger, A. J., A. P. Boss, and G. Anglada-Escudé, Astrometry in the service of planet formation studies: disk lifetimes in nearby star forming regions and a planet candidate around a mature brown dwarf, in *Exploring the Formation and Evolution of Planetary Systems*, M. Booth, B. C. Matthews, and J. R. Graham, eds., pp. 230-231, International Astronomical Union Symposium 299, Cambridge University Press, Cambridge, 2014.

- Westphal, A. J., D. Anderson, A. L. Butterworth, D. R. Frank, R. Lettieri, W. Marchant, J. V. K. D. Zevin, A. Ardizzone, A. Campanile, M. Capraro, K. Crumpler Courtney, D., R. Cwik, F. J. Gray, B. Hudson, G. Imada, J. Karr, L. L. W. Wah, M. Mazzucato, P. G. Motta, C. Rigamonti, R. C. B. Spencer, S. Woodrough, I. C. Santoni, G. Sperry, J.-N. Terry, N. Wordsworth, T. Yahnke, Sr., C. Allen, A. Ansari, S. S. Bajt, R. S. Bastien, N. Bassim, H. A. Bechtel, J. Borg, F. E. Brenker, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, H. Changela, P. Cloetens, A. M. Davis, R. Doll, C. Floss, G. Flynn, Z. Gainsforth, E. Grün, P. R. Heck, J. K. Hillier, P. Hoppe, J. Huth, B. Hvide, A. Kearsley, A. J. King, B. Lai, J. Leitner, L. Lemelle, H. Leroux, A. Leonard, L. R. Nittler, R. Ogliore, W. J. Ong, F. Postberg, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, S. Schmitz, T. Schoonjans, G. Silversmit, A. S. Simionovici, V. A. Solé, R. Srama, T. Stephan, V. J. Sterken, J. Stodolna, R. M. Stroud, S. Sutton, M. Trieloff, P. Tsou, A. Tsuchiyama, T. Tyliczszak, B. Vekemans, L. Vincze, M. E. Zolensky, and >30000 Stardust@home dusters, Stardust Interstellar Preliminary Examination I: identification of tracks in aerogel, *Meteorit. Planet. Sci.*, in press.
- 7377 Westphal, A. J., R. M. Stroud, H. A. Bechtel, F. E. Brenker, A. L. Butterworth, G. J. Flynn, D. R. Frank, Z. Gainsforth, J. K. Hillier, F. Postberg, A. S. Simionovici, V. J. Sterken, L.R. Nittler, C. Allen, D. Anderson, A. Ansari, S. Bajt, R. K. Bastien, N. Bassim, J. Bridges, D. E. Brownlee, M. Burchell, M. Burghammer, H. Changela, P. Cloetens, A. M. Davis, R. Doll, C. Floss, E. Grün, P. R. Heck, P. Hoppe, B. Hudson, J. Huth, A. Kearsley, A. J. King, B. Lai, J. Leitner, L. Lemelle, A. Leonard, H. Leroux, R. Lettieri, W. Marchant, R. Ogliore, W. J. Ong, M. C. Price, S. A. Sandford, J.-A. Sans Tresseras, S. Schmitz, T. Schoonjans, K. Schreiber, G. Silversmit, V. A. Solé, R. Srama, F. Stadermann, T. Stephan, J. Stodolna, S. Sutton, M. Trieloff, P. Tsou, T. Tyliczszak, B. Vekemans, L. Vincze, J. Von Korff, N. Wordsworth, D. Zevin, M. E. Zolensky, and 30714 Stardust@home dusters, Evidence for interstellar origin of seven dust particles collected by the Stardust spacecraft, *Science* 345, 786-791, 2014.
- 7371 Whitten, J. L., J. W. Head, B. W. Denevi, and S. C. Solomon, Inter crater plains on Mercury: insights into unit definition, characterization, and origin from MESSENGER datasets, *Icarus* 241, 97-113, 2014.
- 7381 Williams, J. G., A. S. Konopliv, D. H. Boggs, R. S. Park, D.-N. Yuan, F. G. Lemoine, S. Goossens, E. Mazarico, F. Nimmo, R. C. Weber, S. W. Asmar, H. J. Melosh, G. A. Neumann, R. J. Phillips, D. E. Smith, S. C. Solomon, M. M. Watkins, M. A. Wieczorek, J. C. Andrews-Hanna, J. W. Head, W. S. Kiefer, I. Matsuyama, P. J. McGovern, G. J. Taylor, and M. T. Zuber, Lunar interior properties from the GRAIL mission, *J. Geophys. Res. Planets* 119, 1546-1578, doi:10.1002/2013JE004559, 2014.

- 7372 Winslow, R. M., C. L. Johnson, B. J. Anderson, D. J. Gershman, J. M. Raines, R. J. Lillis, H. Korth, J. A. Slavin, S. C. Solomon, T. H. Zurbuchen, and M. T. Zuber, Mercury's surface magnetic field determined from proton-reflection magnetometry, *Geophys. Res. Lett.* *41*, 4463-4470, doi:10.1002/2014GL060258, 2014.
- 7325 Wittenmyer, R. A., J. Horner, C. G. Tinney, R. P. Butler, H. R. A. Jones, M. Tuomi, G. S. Salter, B. D. Carter, F. E. Koch, S. J. O'Toole, J. Bailey, and D. Wright, The Anglo-Australian Planet Search. XXIII. Two new Jupiter analogs, *Astrophys. J.* *783*, 103, 2014.
- 7280 Wittenmyer, R. A., X. Y. Tan, M. H. Lee, J. Horner, C. G. Tinney, R. P. Butler, G. S. Salter, B. D. Carter, H. R. A. Jones, S. J. O'Toole, J. Bailey, D. Wright, J. D. Crane, S. A. Schectman, P. Arriagada, I. Thompson, D. Minniti, and M. Diaz, A detailed analysis of the HD 73526 2:1 resonant planetary system, *Astrophys. J.* *780*, 140, 2014.
- 7364 Wittenmyer, R. A., M. Tuomi, R. P. Butler, H. R. A. Jones, G. Anglada-Escudé, J. Horner, C. G. Tinney, J. P. Marshall, B. D. Carter, J. Bailey, G. S. Salter, S. J. O'Toole, D. Wright, J. D. Crane, S. A. Schectman, P. Arriagada, I. Thompson, D. Minniti, J. S. Jenkins, and M. Diaz, GJ 832c: a super-Earth in the habitable zone, *Astrophys. J.* *791*, 114, 2014.
- 7251 Xiao, Z., R. G. Strom, D. T. Blewett, P. K. Byrne, S. C. Solomon, S. L. Murchie, A. L. Sprague, D. L. Domingue, and J. Helbert, Dark spots on Mercury: a distinctive low-reflectance material and its relation to hollows, *J. Geophys. Res. Planets* *118*, 1752-1765, doi:10.1002/jgre.20115, 2013.
- 7274 Xiao, Z., R. G. Strom, C. R. Chapman, J. W. Head, C. Klimczak, L. R. Ostrach, J. Helbert, and P. D'Incecco, Comparisons of fresh complex impact craters on Mercury and the Moon: implications for controlling factors in impact excavation processes, *Icarus* *228*, 260-275, 2014.
- 7247 Yu, W.-C., T.-R. A. Song, and P. G. Silver, Temporal velocity changes in the crust associated with the great Sumatra earthquakes, *Bull. Seismol. Soc. Am.* *103*, 2797-2809, 2013.
- 7262 Zega, T. J., L. R. Nittler, F. Gyngard, C. M. O'D. Alexander, R. M. Stroud, and E. K. Zinner, A transmission electron microscopy study of presolar spinel, *Geochim. Cosmochim. Acta* *124*, 152-169, 2014.
- 7326 Zhou, G., D. Bayliss, K. Penev, G. Á. Bakos, J. D. Hartman, A. Jordán, L. Mancini, M. Mohler, Z. Csubry, S. Ciceri, R. Brahm, M. Rabus, L. Buchhave, T. Henning, V. Suc, N. Espinoza, B. Béky, R. W. Noyes, B. Schmidt, R. P. Butler, S. Schectman, I. Thompson, J. Crane, B. Sato, B. Csák, J. Lázár, I. Papp, P. Sári, and N. Nikolov, HATS-5b: a transiting hot Saturn from the HATSouth survey, *Astron. J.* *147*, 144, 2014.