

Contributions from the Department of Terrestrial Magnetism

2008-2009

(Updated through September 30, 2009)

6610 Aarnio, A. N., A. J. Weinberger, K. G. Stassun, E. E. Mamajek, and D. J. James, A survey for a coeval, comoving group associated with HD 141569, *Astron. J.* 136, 2483-2492, 2008. [Link](#)

6704 Alexander, C. M. O'D., Laboratory studies of circumstellar and interstellar materials, in *Interstellar Dust from Astronomical Observations to Fundamental Studies*, F. Boulanger et al., eds., pp. 75-102, European Astronomical Society Publications Series, Vol. 35, EDP Sciences, Les Ulis, France, 2009.

6647 Allers, K. N., M. C. Liu, E. Shkolnik, M. C. Cushing, T. J. Dupuy, G. S. Mathews, I. N. Reid, K. L. Cruz, and W. D. Vacca, 2MASS 22344161+4041387AB: a wide, young, accreting, low-mass binary in the LkHa233 group, *Astrophys. J.* 697, 824-835, 2009. [Link](#)

6609 Arentoft, T., H. Kjeldsen, T. R. Bedding, M. Bazot, J. Christensen-Dalsgaard, T. H. Dall, C. Karoff, F. Carrier, P. Eggenberger, D. Sosnowska, R. A. Wittenmyer, M. Endl, T. S. Metcalfe, S. Hekker, S. Reffert, R. P. Butler, H. Bruntt, L. L. Kiss, S. J. O'Toole, E. Kambe, H. Ando, H. Izumiura, B. Sato, M. Hartmann, A. Hatzes, F. Bouchy, B. Mosser, T. Appourchaux, C. Barban,

G. Berthomieu, R. A. Garcia, E. Michel, J. Provost, S. Turck-Chièze, M. Martić, J.-C. Lebrun, J. Schmitt, J.-L. Bertaux, A. Bonanno, S. Benatti, R. U. Claudi, R. Cosentino, S. Leccia, S. Frandsen, K. Brogaard, L. Glowienka, F. Grundahl, and E. Stempels, A multisite campaign to measure solar-like oscillations in Procyon. I. Observations, data reduction, and slow variations, *Astrophys. J.* 687, 1180-1190, 2008. [Link](#)

6632 Aulbach, S., S. B. Shirey, T. Stachel, S. Creighton, K. Muehlenbach, and J. W. Harris, Diamond formation episodes at the southern margin of the Kaapvaal Craton: Re-Os systematics of sulfide inclusions from the Jagersfontein Mine, *Contrib. Mineral. Petrol.* 157, 525-540, 2009. [Link](#)

6622 Bailey, J., R. P. Butler, C. G. Tinney, H. R. A. Jones, S. O'Toole, B. D. Carter, and G. W. Marcy, A Jupiter-like planet orbiting the nearby M dwarf GJ 832, *Astrophys. J.* 690, 743-747, 2009. [Link](#)

6649 Bakos, G. Á., A. Pál, G. Torres, B. Sipőcz, D. W. Latham, R. W. Noyes, G. Kovács, J. Hartman, G. A. Esquerdo, D. A. Fischer, J. A. Johnson, G. W. Marcy, R. P. Butler, A. W. Howard, D. D. Sasselov, G. Kovács, R. Stefanik, J. Lázár, I. Papp, and P. Sári, HAT-P-10b: a light and moderately hot Jupiter transiting a K dwarf, *Astrophys. J.* 696, 1950-1955, 2009. [Link](#)

6658 Batygin, K., G. Laughlin, S. Meschiari, E. Rivera, S. Vogt, and P. Butler, A quasi-stationary solution to Gliese 436b's eccentricity, *Astrophys. J.* 699, 23-30, 2009. [Link](#)

6634 Benna, M., M. H. Acuña, B. J. Anderson, S. Barabash, S. A. Boardsen, G. Gloeckler, R. E. Gold, G. C. Ho, H. Korth, S. M. Krimigis, R. L. McNutt, Jr., J. M. Raines, M. Sarantos, J. A. Slavin, S. C. Solomon, T. L. Zhang, and T. H. Zurbuchen, Modeling the response of the induced magnetosphere of Venus to changing IMF direction using MESSENGER and Venus Express observations, *Geophys. Res. Lett.* 36, L04109, 10.1029/2008GL036718, 2009. [Link](#)

6661 Berger, E., A. M. Soderberg, R. A. Chevalier, C. Fransson, R. J. Foley, D. C. Leonard, J. H. Debes, A. M. Diamond-Stanic, A. K. Dupree, I. I. Ivans, J. Simmerer, I. B. Thompson, and C. A. Tremonti, An intermediate luminosity transient in NGC 300: the eruption of a dust-enshrouded massive star, *Astrophys. J.* 699, 1850-1865, 2009.

[Link](#)

6596 Blackburn, T. J., D. F. Stockli, R. W. Carlson, and P. Berendsen, (U–Th)/He dating of kimberlites--a case study from north-eastern Kansas, *Earth Planet. Sci. Lett.* 275, 111-120, 2008.

[Link](#)

6680 Blewett, D. T., M. S. Robinson, B. W. Denevi, J. J. Gillis-Davis, J. W. Head, S. C. Solomon, G. M. Holsclaw, and W. E. McClintock, Multispectral images of Mercury from the first MESSENGER flyby: analysis of global and regional color trends, *Earth Planet. Sci. Lett.* 285, 272-282, 2009. [Link](#)

[k](#)

6614 Boardsen, S. A., B. J. Anderson, M. H. Acuña, J. A. Slavin, H. Korth, and S. C. Solomon, Narrow-band ultra-low-frequency wave observations by MESSENGER during its January 2008 flyby through Mercury's magnetosphere, *Geophys. Res. Lett.* 36, L01104, 10.1029/2008GL036034, 2009.

[Link](#)

6674 Boardsen, S. A., J. A. Slavin, B. J. Anderson, H. Korth, and S. C. Solomon, Comparison of ultra-low-frequency waves at Mercury under northward and southward IMF, *Geophys. Res. Lett.* 36, L18106, 10.1029/2009GL039525, 2009.

[Link](#)

6629 Bonanos, A. Z., Toward an accurate determination of parameters for very massive stars: the eclipsing binary LMC-SC1-105, *Astrophys. J.* 691,

407-417, 2009.

[Link](#)

6697 Bonanos, A. Z., A survey of the most massive stars in the Magellanic Clouds, in *The Magellanic System:*

Stars, Gas, and Galaxies,

J. T. Van Loon and J. M. Oliveira, eds., pp. 343-348, International Astronomical Union Symposium 256, Cambridge University Press, New York, 2009.

6638 Boss, A., Brave new worlds, *Phys. World* 22 (no. 3), 26-30, 2009.

6690 Boss, A., *The Crowded Universe: the Search for Living Planets*, Basic Books, New York, 227 pp., 2009.

6637 Boss, A. P., Analytical solutions for radiative transfer: implications for giant planet formation by disk instability,

Astroph

ys. J. 694,

107-114, 2009.

[Link](#)

6653 Boss, A. P., Collapse and fragmentation of molecular cloud cores. X. Magnetic braking of prolate and oblate cores,

Astrophys. J. 697,

1940-1945, 2009.

[Link](#)

6607 Boss, A. P., S. I. Ipatov, S. A. Keiser, E. A. Myhill, and H. A. T. Vanhala, Simultaneous triggered collapse of the presolar dense cloud core and injection of short-lived radioisotopes by a supernova shock wave, *Astrophys. J. (Lett.)* 686, L119-L122, 2008. [Link](#)

6600 Brandenburg, J. P., E. H. Hauri, P. E. van Keken, and C. J. Ballentine, A multiple-system study of the geochemical evolution of the mantle with force-balanced plates and

thermochemical effects, *Earth Planet. Sci. Lett.* 276, 1-13, 2008. [Link](#)

6651 Brucker, M. J., W. M. Grundy, J. A. Stansberry, J. R. Spencer, S. S. Sheppard, E. I. Chiang, and M. W. Buie, High albedos of low inclination Classical Kuiper belt objects, *Icarus* 201, 284-294, 2009.
[Link](#)

6627 Butler, R. P., A. W. Howard, S. S. Vogt, and J. T. Wright, Nondetection of the Neptune-mass planet reported around GJ 176, *Astrophys. J.* 691, 1738-1743, 2009. [Link](#)

6603 Carlson, R. W., and M. Boyet, Composition of the Earth's interior: the importance of early events, *Phil. Trans. Roy. Soc. London A* 366, 4077-4103, 2008.
[Link](#)

6639 Carlson, R. W., and M. Boyet, Short-lived radionuclides as monitors of early crust-mantle differentiation on the terrestrial planets, *Earth Planet. Sci. Lett.* 279, 147-156, 2009. [Link](#)

6601 Chambers, J., Oligarchic growth with migration and fragmentation, *Icarus* 198, 256-273, 2008. [Link](#)

6671 Chambers, J., Archaeology of the asteroid belt, *Nature* 460, 963-964, 2009. [Link](#)

6666 Chambers, J. E., Planetary migration: what does it mean for planet formation? *Annu. Rev. Earth Planet. Sci.* 37, 321-344, 2009.
[Link](#)

6631 Chan, L.-H., J. C. Lassiter, E. H. Hauri, S. R. Hart, and J. Blusztajn, Lithium isotope systematics of lavas from the Cook-Austral Islands: constraints on the origin of HIMU mantle, *Earth Planet. Sci. Lett.* 277, 433-442, 2009.

[Link](#)

6667 Class, C., S. L. Goldstein, and S. B. Shirey, Osmium isotopes in Grande Comore lavas: a new extreme among a spectrum of EM-type mantle endmembers, *Earth Planet. Sci. Lett.* 284, 219-227, 2009.

[Link](#)

6606 Coccato, L., R. A. Swaters, V. C. Rubin, S. D'Odorico, and S. S. McGaugh, VIMOS-VLT integral field kinematics of the giant low surface brightness galaxy ESO 323-G064, *Astron. Astrophys.* 490, 589-600, 2008.

[Link](#)

6707 Debes, J. H., A. J. Weinberger, and M. J. Kuchner, Interstellar medium sculpting of the HD 32297 debris disk, *Astrophys. J.* 702, 318-326, 2009. [Link](#)

6645 Denevi, B. W., M. S. Robinson, S. C. Solomon, S. L. Murchie, D. T. Blewett, D. L. Domingue, T. J. McCoy, C. M. Ernst, J. W. Head, T. R. Watters, and N. L. Chabot, The evolution of Mercury's crust: a global perspective from MESSENGER, *Science* 324, 613-618, 2009.

[Link](#)

6620 Fahed, R., A. F. J. Moffat, and A. Z. Bonanos, Photometric variability of WC9 stars, *Mon. Not. Roy. Astron. Soc.* 392, 376-382, 2009.

[Link](#)

6673 Fares, R., J.-F. Donati, C. Moutou, D. Bohlender, C. Catala, M. Deleuil, E. Shkolnik, A. C. Cameron, M. M. Jardine, and G. A. H. Walker, Magnetic cycles of the planet-hosting star τ Bootis - II. A second magnetic polarity reversal, *Mon. Not. Roy. Astron. Soc.* 398, 1383-1391, 2009.

[Link](#)

6700 Farès, R., J.-F. Donati, C. Moutou, E. Shkolnik, and D. Bohlender, Spectropolarimetry of hot Jupiter systems, in *Cool Stars, Stellar Systems and the Sun: Proceedings of the 15th Cambridge Workshop*, E. Stempels, ed., pp. 437-440, AIP Conference Proceedings 1094, American Institute of Physics, Melville, N.Y., 2009.

6682 Fassett, C. I., J. W. Head, D. T. Blewett, C. R. Chapman, J. L. Dickson, S. L. Murchie, S. C. Solomon, and T. R. Watters, Caloris impact basin: exterior geomorphology, stratigraphy, morphometry, radial sculpture, and smooth plains deposits, *Earth Planet. Sci. Lett.* 285, 297-308, 2009.

[Link](#)

6592 Foustoukos, D. I., I. Savov, and D. R. Janecky, Chemical and isotopic constraints on water/rock interactions at the Lost City hydrothermal field, 30° N Mid-Atlantic Ridge, *Geochim. Cosmochim. Acta* 72, 5457-5474, 2008.

[Link](#)

6684 Freed, A. M., S. C. Solomon, T. R. Watters, R. J. Phillips, and M. T. Zuber, Could Pantheon Fossae be the result of the Apollodorus crater-forming impact within the Caloris basin, Mercury? *Earth Planet. Sci. Lett.* 285, 320-327, 2009. [Link](#)

6677 Gillis-Davis, J. J., D. T. Blewett, R. W. Gaskell, B. W. Denevi, M. S. Robinson, R. G. Strom, S. C. Solomon, and A. L. Sprague, Pit-floor craters on Mercury: evidence of near-surface igneous activity, *Earth Planet. Sci. Lett.* 285, 243-250, 2009.

[Link](#)

6702 Grossman, L., J. R. Beckett, A. V. Fedkin, S. B. Simon, and F. J. Ciesla, Redox conditions in the solar nebula: observational, experimental, and theoretical constraints, *Rev. Mineral. Geochem.* 68, 93-140, 2008.

[Link](#)

6659 Halama, R., I. P. Savov, R. L. Rudnick, and W. F. McDonough, Insights into Li and Li isotope cycling and sub-arc metasomatism from veined mantle xenoliths, Kamchatka, *Contrib. Mineral. Petrol.* 158, 197-222, 2009.

[Link](#)

6695 Hawkins, S. E., III, S. L. Murchie, K. J. Becker, C. M. Selby, F. S. Turner, M. W. Noble, N. L. Chabot, T. H. Choo, E. H. Darlington, B. W. Denevi, D. L. Domingue, C. M. Ernst, G. M. Holsclaw, N. R. Laslo, W. E. McClintock, L. M. Prockter, M. S. Robinson, S. C. Solomon, and R. E. Sterner, II, In-flight performance of MESSENGER's Mercury Dual Imaging System, in *Instruments and Methods for Astrobiology and Planetary Missions XII*, R. B. Hoover et al., eds., Paper 74410Z (12 pp.) SPIE Proceedings Vol. 7441, SPIE, Bellingham, Wash., 2009.

6676 Head, J. W., S. L. Murchie, L. M. Prockter, S. C. Solomon, C. R. Chapman, R. G. Strom, T. R. Watters, D. T. Blewett, J. J. Gillis-Davis, C. I. Fassett, J. L. Dickson, G. A. Morgan, and L. Kerber, Volcanism on Mercury: evidence from the first MESSENGER flyby for extrusive and explosive activity and the volcanic origin of plains, *Earth Planet. Sci. Lett.* 285, 227-242, 2009.

[Link](#)

6678 Head, J. W., S. L. Murchie, L. M. Prockter, S. C. Solomon, R. G. Strom, C. R. Chapman, T. R. Watters, D. T. Blewett, J. J. Gillis-Davis, C. I. Fassett, J. L. Dickson, D. M. Hurwitz, and L. R. Ostrach, Evidence for intrusive activity on Mercury from the first MESSENGER flyby, *Earth Planet. Sci. Lett.* 285, 251-262, 2009.

[Link](#)

6595 Hekker, S., T. Arentoft, H. Kjeldsen, T. R. Bedding, J. Christensen-Dalsgaard, S. Reffert, H. Bruntt, R. P. Butler, L. L. Kiss, S. J. O'Toole, E. Kambe, H. Ando, H. Izumiura, B. Sato, M. Hartmann, A. P. Hatzes, T. Appourchaux, C. Barban, G. Berthomieu, F. Bouchy, R. A. García, J.-C. Lebrun, M. Martić, E. Michel, B. Mosser, P. A. P. Nghiem, J. Provost, R. Samadi, F. Thévenin, S. Turck-Chièze, S. A. Bonanno, S. Benatti, R. U. Claudi, R. Cosentino, S. Leccia, S. Frandsen, K. Brogaard, F. Grundahl, H. C. Stempels, M. Bazot, T. H. Dall, C. Karoff, F. Carrier, P. Eggenberger, D. Sosnowska, R. A. Wittenmyer, M. Endl, and T. S. Metcalfe, Oscillations in Procyon A: first results from a multi-site campaign, *J. Phys.: Conf. Ser.* 118, 012059, 2008. [Link](#)

6698 Hernán-Obispo, H., M. C. Gálvez, G. Anglada-Escudé, S. R. Kane, E. de Castro, and M. Cornide, BD+20 1790 b: chronicle of an exoplanetary discovery, in *Cool Stars, Stellar Systems and the Sun: Proceedings of the 15th Cambridge Workshop*, E. Stempels, ed., pp. 441-444, AIP Conference Proceedings 1094, American Institute of Physics, Melville, N.Y., 2009.

6625 Herzog, G. F., C. M. O'D. Alexander, E. L. Berger, J. S. Delaney, and B. P. Glass, Potassium isotope abundances in Australasian tektites and microtektites, *Meteoritics Planet. Sci.* 43, 1641-1657, 2008. [Link](#)

6688 Hood, B., K. Wood, S. Seager, and A. C. Cameron, Reflected light from 3D exoplanetary atmospheres and simulation of HD 209458b, *Mon. Not. Roy. Astron. Soc.* 389, 257-269, 2008. [Link](#)

6613 Jackson, M. G., and R. Dasgupta, Compositions of HIMU, EM1, and EM2 from global trends between radiogenic isotopes and major elements in ocean island basalts, *Earth Planet. Sci. Lett.* 276, 175-186, 2008. [Link](#)

6612 Jicha, B. R., G. L. Hart, C. M. Johnson, W. Hildreth, B. L. Beard, S. B. Shirey, and J. W. Valley, Isotopic and trace element constraints on the petrogenesis of lavas from the Mount Adams volcanic field, Washington, *Contrib. Mineral. Petrol.* 157, 189-207, 2009. [Link](#)

6624 Jicha, B. R., C. M. Johnson, W. Hildreth, B. L. Beard, G. L. Hart, S. B. Shirey, and B. S. Singer, Discriminating assimilants and decoupling deep- vs. shallow-level crystal records at Mount Adams using ^{238}U - ^{230}Th disequilibria and Os isotopes, *Earth Planet. Sci. Lett.* 277, 38-49, 2009.

[Link](#)

6594 Johnson, J. A., J. N. Winn, N. Narita, K. Enya, P. K. G. Williams, G. W. Marcy, B. Sato, Y. Ohta, A. Taruya, Y. Suto, E. L. Turner, G. Bakos, R. P. Butler, S. S. Vogt, W. Aoki, M. Tamura, T. Yamada, Y. Yoshii, and M. G. Hidas, Measurement of the spin-orbit angle of exoplanet HAT-P-1b, *Astrophys. J.* 686, 649-657, 2008. [Link](#)

6623 Jung, H., Y. Fei, P. G. Silver, and H. W. Green, II, Frictional sliding in serpentine at very high pressure, *Earth Planet. Sci. Lett.* 277, 273-279, 2009. [Link](#)

6679 Kerber, L., J. W. Head, S. C. Solomon, S. L. Murchie, D. T. Blewett, and L. Wilson, Explosive volcanic eruptions on Mercury: eruption conditions, magma volatile content, and implications for interior volatile abundances, *Earth Planet. Sci. Lett.* 285, 263-271, 2009.

[Link](#)

6641 Kite, E. S., I. Matsuyama, M. Manga, J. T. Perron, and J. X. Mitrovica, True polar wander driven by late-stage volcanism and the distribution of paleopolar deposits on Mars, *Earth Planet. Sci. Lett.* 280, 254-267, 2009.

[Link](#)

6633 Küppers, M., H. U. Keller, E. Kührt, M. F. A'Hearn, K. Altwegg, R. Bertrand, H. Busemann, M. T. Capria, L. Colangeli, B. Davidsson, P. Ehrenfreund, J. Knollenberg, S. Mottola, A. Rathke, P. Weiss, M. Zolensky, E. Akim, A. Basilevsky, E. Galimov, M. Gerasimov, O. Korablev, I. Lomakin, M. Marov, M. Martynov, M. Nazarov, A. Zakharov, L. Zelenyi, A. Aronica, A. J. Ball, C. Barbieri, A. Bar-Nun, J. Benkhoff, J. Biele, N. Biver, J. Blum, D. Bockelée-Morvan, O. Botta, J.-H. Bredehöft, F. Capaccioni, S. Charnley, E. Cloutis, H. Cottin, G. Cremonese, J. Crovisier, S. A. Crowther, E. M. Epifani, F. Esposito, A. C. Ferrari, F. Ferri, M. Fulle, J. Gilmour, F.

Goesmann, N. Gortsas, S. F. Green, O. Groussin, E. Grün, P. J. Gutiérrez, P. Hartogh, T. Henkel, M. Hilchenbach, T.-M. Ho, G. Horneck, S. F. Hviid, W.-H. Ip, A. Jäckel, E. Jessberger, R. Kallenbach, G. Kargl, N. I. Kömle, A. Korth, K. Kossacki, C. Krause, H. Krüger, Z.-Y. Li, J. Licandro, J. J. Lopez-Moreno, S. C. Lowry, I. Lyon, G. Magni, U. Mall, I. Mann, W. Markiewicz, Z. Martins, M. Maurette, U. Meierhenrich, V. Mennella, T. C. Ng, L. R. Nittler, P. Palumbo, M. Pätzold, D. Prialnik, M. Rengel, H. Rickman, J. Rodriguez, R. Roll, D. Rost, A. Rotundi, S. Sandford, M. Schönbachler, H. Sierks, R. Srama, R. M. Stroud, S. Szutowicz, C. Tornow, S. Ulamec, M. Wallis, W. Waniak, P. Weissman, R. Wieler, P. Wurz, K. L. Yung, and J. C. Zarnecki, Triple F--a comet nucleus sample return mission, *Experim. Astron.* 23, 809-847, 2009. [Lin](#)

[k](#)

6650 Languard-Shula, L. E., S. S. Vogt, D. Charbonneau, P. Butler, and G. Marcy, A HIRES/Keck spectroscopic investigation of the measurement of sodium in the atmosphere of HD 209458b, *Astrophys. J.* 696, 1355-1366, 2009. [Link](#)

6621 Laughlin, G., D. Deming, J. Langton, D. Kasen, S. Vogt, P. Butler, E. Rivera, and S. Meschiari, Rapid heating of the atmosphere of an extrasolar planet, *Nature* 457, 562-564, 2009. [Lin](#)

[k](#)

6636 Lim, L. F., and L. R. Nittler, Elemental composition of 433 Eros: new calibration of the NEAR-Shoemaker XRS data, *Icarus* 200, 129-146, 2009.

[Link](#)

6656 Liu, C., A. T. Linde, and I. S. Sacks, Slow earthquakes triggered by typhoons, *Nature* 459, 833-836, 2009.

[Link](#)

6662 Long, M. D., Complex anisotropy in D" beneath the eastern Pacific from SKS-SKKS splitting discrepancies, *Earth Planet. Sci. Lett.* 283, 181-189, 2009. [Link](#)

6602 López-Morales, M., R. P. Butler, D. A. Fischer, D. Minniti, S. A. Shectman, G. Takeda, F. C. Adams, J. T. Wright, and P. Arriagada, Two Jupiter-mass planets orbiting HD 154672 and HD 205739, *Astron. J.* 136, 1901-1905, 2008. [Link](#)

6669 Lyons, J. R., E. A. Bergin, F. J. Ciesla, A. M. Davis, S. J. Desch, K. Hashizume, and J.-E. Lee, Timescales for the evolution of oxygen isotope compositions in the solar nebula, *Geochim. Cosmochim. Acta* 73, 4998-5017, 2009.
[Link](#)

6691 Malmberg, D., M. B. Davies, J. E. Chambers, R. P. Church, F. De Angeli, D. Mackey, and M. I. Wilkinson, The singleton fraction of stars formed in stellar clusters, in *Extreme Solar Systems*, D. Fischer et al., eds., pp. 75-76, Conference Series, Vol. 398, Astronomical Society of the Pacific, San Francisco, 2008.

6642 Mandeville, C. W., J. D. Webster, C. Tappen, B. E. Taylor, A. Timbal, A. Sasaki, E. Hauri, and C. R. Bacon, Stable isotope and petrologic evidence for open-system degassing during the climactic and pre-climactic eruptions of Mt. Mazama, Crater Lake, Oregon, *Geochim. Cosmochim. Acta* 73, 2978-3012, 2009.
[Link](#)

6611 Martini, M., F. Giudicepietro, L. D'Auria, A. M. Esposito, T. Caputo, R. Curciotti, W. De Cesare, M. Orazi, G. Scarpato, A. Caputo, R. Peluso, P. Ricciolino, A. Linde, and S. Sacks, Seismological monitoring of the February 2007 effusive eruption of the Stromboli volcano, *Ann. Geophys.* 50, 775-788, 2007.
[Link](#)

6664 Matsuyama, I., D. Johnstone, and D. Hollenbach, Dispersal of protoplanetary disks by central wind stripping, *Astrophys. J.* 700, 10-19, 2009. [Link](#)

6626 Matsuyama, I., and F. Nimmo, Gravity and tectonic patterns of Mercury: effect of tidal

deformation, spin-orbit resonance, nonzero eccentricity, despinning, and reorientation,
J. Geophys. Res. 114,
E01010, 10.1029/2008JE003252, 2009.

[Link](#)

6593 McCanta, M. C., A. H. Treiman, M. D. Dyar, C. M. O'D. Alexander, D. Rumble, III, and E. J. Essene, The LaPaz Icefield 04840 meteorite: mineralogy, metamorphism, and origin of an amphibole- and biotite-bearing R chondrite,
Geochim. Cosmochim. Acta 72,
5757-5780, 2008.

[Link](#)

6644 McClintock, W. E., R. J. Vervack, E. T. Bradley, R. M. Killen, N. Mouawad, A. L. Sprague, M. H. Burger, S. C. Solomon, and N. R. Izenberg, MESSENGER observations of Mercury's exosphere: detection of magnesium and distribution of constituents, *Science* 324,
610-613, 2009.

[Link](#)

6694 McNutt, R. L., Jr., S. C. Solomon, P. D. Bedini, E. J. Finnegan, D. G. Grant, and the MESSENGER Team, The MESSENGER mission: results from the first two Mercury flybys, in *60th International Astronautical Congress*, Paper IAC-09-A3.6.2 (9 pp.), 2009.

6703 Meigs, A., K. Scarberry, A. Grunder, R. W. Carlson, M.T. Ford, M. Fouch, T. Grove, W.K. Hart, M. Iademarco, B. Jordan, J. Milliard, M. J. Streck, D. Trench, and R. Weldon, Geological and geophysical perspectives on the magmatic and tectonic development, High Lava Plains and northwest Basin and Range, in *Volcanoes to Vineyards*, J. E. O'Connor, R. J. Dorsey, and I. P. Madin, eds., pp. 435-470, GSA Field Guide 15, Geological Society of America, Boulder, Colo., 2009.

6672 Meschiari, S., A. S. Wolf, E. Rivera, G. Laughlin, S. Vogt, and P. Butler, Systemic: a testbed for characterizing the detection of extrasolar planets.

I. The Systemic Console package,
Publ. Astron. Soc. Pacific 121,
1016-1027, 2009.

[Link](#)

6635 Minniti, D., R. P. Butler, M. López-Morales, S. A. Shectman, F. C. Adams, P. Arriagada, A. P. Boss, and J. E. Chambers, Low-mass companions for five solar-type stars from the Magellan Planet Search Program, *Astrophys. J.* 693, 1424-1430, 2009. [Link](#)

6687 Mohit, P. S., C. L. Johnson, O. Barnouin-Jha, M. T. Zuber, and S. C. Solomon, Shallow basins on Mercury: evidence of relaxation? *Earth Planet. Sci. Lett.* 285, 355-363, 2009. [Link](#)

6628 Morales, J. C., I. Ribas, C. Jordi, G. Torres, J. Gallardo, E. F. Guinan, D. Charbonneau, M. Wolf, D. W. Latham, G. Anglada-Escudé, D. H. Bradstreet, M. E. Everett, F. T. O'Donovan, G. Mandushev, and R. D. Mathieu, Absolute properties of the low-mass eclipsing binary CM Draconis, *Astrophys. J.* 691, 1400-1411, 2009. [Link](#)

6630 Morris, M. A., S. J. Desch, and F. J. Ciesla, Cooling of dense gas by H₂O line emission and an assessment of its effects in chondrule-forming shocks, *Astrophys. J.* 691, 320-331, 2009. [Link](#)

6675 Nittler, L. R., On the mass and metallicity distributions of the parent AGB stars of O-rich presolar stardust grains, *Publ. Astron. Soc. Aust.* 26, 271-277, 2009.

6604 Olson, P., and D. Weeraratne, Experiments on metal-silicate plumes and core formation, *Phil. Trans. Roy. Soc. London A* 366, 4253-4271, 2008. [Link](#)

6665 O'Neil, J., R. W. Carlson, D. Francis, and R. K. Stevenson, Response to comment on "Neodymium-142 evidence for Hadean mafic crust," *Science* 325, 267b, 2009. [Link](#)

6668 O'Toole, S. J., H. R. A. Jones, C. G. Tinney, R. P. Butler, G. W. Marcy, B. Carter, J. Bailey, and R. A. Wittenmyer, The frequency of low-mass exoplanets, *Astrophys. J.* 701, 1732-1741, 2009.

[Link](#)

6654 O'Toole, S. J., C. G. Tinney, R. P. Butler, H. R. A. Jones, J. Bailey, B. D. Carter, S. S. Vogt, G. Laughlin, and E. J. Rivera, A Neptune-mass planet orbiting the nearby G dwarf HD 16417, *Astrophys. J.* 697, 1263-1268, 2009. [Link](#)

6615 O'Toole, S. J., C. G. Tinney, H. R. A. Jones, R. P. Butler, G. W. Marcy, B. Carter, and J. Bailey, Selection functions in Doppler planet searches, *Mon. Not. Roy. Astron. Soc.* 392, 641-654, 2009.

[Link](#)

6670 Ouellette, N., S. J. Desch, M. Bizzarro, A. P. Boss, F. Ciesla, and B. Meyer, Injection mechanisms of short-lived radionuclides and their homogenization, *Geochim. Cosmochim. Acta* 73, 4946-4962, 2009. [Link](#)

6663 Pál, A., G. Á. Bakos, J. Fernandez, B. Sipőcz, G. Torres, D. W. Latham, G. Kovács, R. W. Noyes, G. W. Marcy, D. A. Fischer, R. P. Butler, D. D. Sasselov, G. A. Esquerdo, A. Shporer, T. Mazeh, R. P. Stefanik, and H. Isaacson, Independent confirmation and refined parameters of the hot Jupiter XO-5b, *Astrophys. J.* 700, 783-790, 2009. [Link](#)

6652 Pietruszka, A. J., E. H. Hauri, and J. Blichert-Toft, Crustal contamination of mantle-derived magmas within Piton de la Fournaise volcano, Réunion Island, *J. Petrol.* 50, 661-684, 2009. [Link](#)

6686 Purucker, M. E., T. J. Sabaka, S. C. Solomon, B. J. Anderson, H. Korth, M. T. Zuber, and G. A. Neumann, Mercury's internal magnetic field: constraints on large- and small-scale fields of crustal origin, *Earth Planet. Sci. Lett.* 285,

340-346, 2009.

[Link](#)

6598 Rehfeldt, T., S. F. Foley, D. E. Jacob, R. W. Carlson, and D. Lowry, Contrasting types of metasomatism in dunite, wehrlite and websterite xenoliths from Kimberley, South Africa, *G*
eochem. Cosmochim. Acta 72,
5722-5756, 2008.

[Link](#)

6692 Roberge, A., and A. J. Weinberger, Gas and dust in debris disks: what is normal? in *Extre*
me Solar Systems,
D. Fischer et al., eds., pp. 325-332, Conference Series, Vol. 398, Astronomical Society of the
Pacific, San Francisco, 2008.

6617 Schneider, G., A. J. Weinberger, E. E. Becklin, J. H. Debes, and B. A. Smith, STIS
imaging of the HR 4796A circumstellar debris ring, *Astron. J.* 137, 53-61, 2009. [Link](#)

6605 Schönbächler, M., R. W. Carlson, M. F. Horan, T. D. Mock, and E. H. Hauri, Silver isotope
variations in chondrites: volatile depletion and the initial ^{107}Pd abundance of the solar
system, *Geochim. Cosmochim.*
Acta 72, 5330-5341,
2008. [Link](#)

6689 Schulte, R. F., M. Schilling, R. Anma, J. Farquhar, M. F. Horan, T. Komiya, P. M. Piccoli,
L. Pitcher, and R. J. Walker, Chemical and chronologic complexity in the convecting upper
mantle: evidence from the Taitao ophiolite, southern Chile, *Geochim. Cosmochim. Acta*
73, 5793-5819, 2009. [Link](#)

6597 Shaw, A. M., E. H. Hauri, T. P. Fischer, D. R. Hilton, and K. A. Kelley, Hydrogen isotopes
in Mariana arc melt inclusions: implications for subduction dehydration and the deep-Earth
water cycle, *Earth Planet. Sci. Lett.* 275, 138-145, 2008. [Li](#)
[nk](#)

6616 Sheppard, S. S., and M. C. Cushing, An infrared high proper motion survey using 2MASS and SDSS: discovery of M, L, and T dwarfs, *Astron. J.* 137, 304-314, 2009. [Link](#)

6660 Sheppard, S. S., and C. A. Trujillo, A survey for satellites of Venus, *Icarus* 202, 12-16, 2009. [Link](#)

6701 Shkolnik, E., S. Aigrain, S. Cranmer, R. Fares, M. Fridlund, F. Pont, J. Schmitt, A. Smith, and T. Suzuki, Star-planet interactions, in *Cool Stars, Stellar Systems and the Sun: Proceedings of the 15th Cambridge Workshop*, E. Stempels, ed., pp. 275-282, AIP Conference Proceedings 1094, American Institute of Physics, Melville, N.Y., 2009.

6657 Shkolnik, E., M. C. Liu, and I. N. Reid, Identifying the young low-mass stars within 25 pc. I. Spectroscopic observations, *Astrophys. J.* 699, 649-666, 2009. [Link](#)

6705 Sichel, S. E., S. Esperança, A. Motoki, M. Maia, M. F. Horan, P. Szatmari, E. da C. Alves, and S. L. M. Mello, Geophysical and geochemical evidence for cold upper mantle beneath the equatorial Atlantic Ocean, *Rev. Bras. Geof.* 26, 69-86, 2008.

6706 Simon, J. D., A. Gal-Yam, O. Gnat, R. M. Quimby, M. Ganeshalingam, J. M. Silverman, S. Blondin, W. D. Li, A. V. Filippenko, J. C. Wheeler, R. P. Kirshner, F. Patat, P. Nugent, R. J. Foley, S. S. Vogt, R. P. Butler, K. M. G. Peek, E. Rosolowsky, G. J. Herczeg, D. N. Sauer, and P. A. Mazzali, Variable sodium absorption in a low-extinction Type Ia supernova, *Astrophys. J.* 702, 1157-1170, 2009. [Link](#)

6618 Sing, D. K., and M. López-Morales, Ground-based secondary eclipse detection of the very-hot Jupiter OGLE-TR-56b, *Astron. Astrophys.* 493, L31-L34, 2009. [Link](#)

6643 Slavin, J. A., M. H. Acuña, B. J. Anderson, D. N. Baker, M. Benna, S. A. Boardsen, G. Gloeckler, R. E. Gold, G. C. Ho, H. Korth, S. M. Krimigis, R. L. McNutt, Jr., J. M. Raines, M. Sarantos, D. Schriver, S. C. Solomon, P. Trávníček, and T. H. Zurbuchen, MESSENGER observations of magnetic reconnection in Mercury's magnetosphere, *Science* 324, 606-610, 2009.

[Link](#)

6655 Slavin, J. A., M. H. Acuña, B. J. Anderson, S. Barabash, M. Benna, S. A. Boardsen, M. Fraenz, G. Gloeckler, R. E. Gold, G. C. Ho, H. Korth, S. M. Krimigis, R. L. McNutt, Jr., J. M. Raines, M. Sarantos, S. C. Solomon, T. Zhang, and T. H. Zurbuchen, MESSENGER and Venus Express observations of the solar wind interaction with Venus, *Geophys. Res. Lett.* 36, L09106, 10.1029/2009GL037876, 2009.

[Link](#)

6619 Slavin, J. A., B. J. Anderson, T. H. Zurbuchen, D. N. Baker, S. M. Krimigis, M. H. Acuña, M. Benna, S. A. Boardsen, G. Gloeckler, R. E. Gold, G. C. Ho, H. Korth, R. L. McNutt, Jr., J. M. Raines, M. Sarantos, D. Schriver, S. C. Solomon, and P. Trávníček, MESSENGER observations of Mercury's magnetosphere during northward IMF, *Geophys. Res. Lett.* 36, L02101, 10.1029/2008GL036158, 2009.

[Link](#)

6693 Solomon, S. C., and R. L. McNutt, Jr., MESSENGER mission, in *McGraw-Hill Yearbook of Science & Technology 2009*, pp. 208-211, McGraw-Hill, New York, 2009.

6640 Song, T.-R. A., D. V. Helmberger, M. R. Brudzinski, R. W. Clayton, P. Davis, X. Pérez-Campos, and S. K. Singh, Subducting slab ultra-slow velocity layer coincident with silent earthquakes in southern Mexico, *Science* 324, 502-506, 2009. [Link](#)

6696 Sozzetti, A., D. W. Latham, G. Torres, B. W. Carney, J. B. Laird, R. P. Stefanik, A. P. Boss, D. Charbonneau, F. T. O'Donovan, M. J. Holman, and J. N. Winn, Probing structural and evolutionary properties of exoplanets, *Mem. Soc. Astron. Ital.* 80, 318-321, 2009. [Link](#)

6648 Sozzetti, A., G. Torres, D. W. Latham, R. P. Stefanik, S. G. Korzennik, A. P. Boss, B. W.

Carney, and J. B. Laird, A Keck HIRES Doppler search for planets orbiting metal-poor dwarfs. II. On the frequency of giant planets in the metal-poor regime, *Astrophys. J.* 697, 544-556, 2009.

[Link](#)

6699 Stassun, K. G., L. Hebb, M. López-Morales, and A. Prša, Eclipsing binary stars as tests of stellar evolutionary models and stellar ages, in *The Ages of Stars*, E. E. Mamajek, D. R. Soderblom, and R. F. G. Wyse, eds., pp. 161-170, International Astronomical Union Symposium 258, Cambridge University Press, New York, 2009.

6685 Uno, H., C. L. Johnson, B. J. Anderson, H. Korth, and S. C. Solomon, Modeling Mercury's internal magnetic field with smooth inversions, *Earth Planet. Sci. Lett.* 285, 328-339, 2009.

[Link](#)

6599 Wade, J. A., T. Plank, E. H. Hauri, K. A. Kelley, K. Roggensack, and M. Zimmer, Prediction of magmatic water contents via measurement of H₂O in clinopyroxene phenocrysts, *Geology* 36, 799-802, 2008.

[Link](#)

6646 Watters, T. R., J. W. Head, S. C. Solomon, M. S. Robinson, C. R. Chapman, B. W. Denevi, C. I. Fassett, S. L. Murchie, and R. G. Strom, Evolution of the Rembrandt impact basin on Mercury, *Science* 324, 618-621, 2009. [Link](#)

6683 Watters, T. R., S. L. Murchie, M. S. Robinson, S. C. Solomon, B. W. Denevi, S. L. André, and J. W. Head, Emplacement and tectonic deformation of smooth plains in the Caloris basin, Mercury, *Earth Planet. Sci. Lett.* 285, 309-319, 2009. [Link](#)

6681 Watters, T. R., S. C. Solomon, M. S. Robinson, J. W. Head, S. L. André, S. A. Hauck, II, and S. L. Murchie, The tectonics of Mercury: the view after MESSENGER's first flyby, *Earth Planet. Sci. Lett.* 285, 283-296, 2009.

[Link](#)

6608 Weinberger, A. J., Building planets in disks of chaos, *Sky & Telescope* 116 (no. 5), 32-37, 2008.