

A. DEANNE ROGERS
STONY BROOK UNIVERSITY, NY, USA

EXPERTISE AND RESEARCH INTERESTS: surface processes and compositions of planets and small bodies; remote sensing of planetary surfaces; laboratory spectroscopic and thermophysical studies of relevant planetary analog materials; field-based spectral and thermophysical studies of planetary analog sites on Earth; environmental remote sensing.

EDUCATION AND PROFESSIONAL APPOINTMENTS

- 2017-present: Associate Professor, Stony Brook University, NY, USA
- 2011-2017: Assistant Professor, Stony Brook University, NY, USA
- 2007-2011: Research Assistant Professor, Stony Brook University, NY, USA
- 2005-2007: Postdoctoral scholar, California Institute of Technology, CA, USA
- 2001-2005: Ph.D., Geological Sciences, Arizona State University, AZ, USA
- 1999-2001: M. S., Geology, Arizona State University, AZ, USA
- 1998-1999: Director of Operations, NASA Academy, Goddard Space Flight Center Univ. Prog. Office
- 1994-1998: B. S., Geology, College of Charleston, Charleston, SC, USA

AWARDS

- NASA Planetary Science Division Early Career Fellow (2008)
- NASA Group Achievement Award for Mars Exploration Rovers (2004)
- NASA Group Achievement Award for 2001 Odyssey THEMIS (2003)
- ASU Graduate Academic Scholarship (2001-2002)
- ASU Outstanding Geology Teaching Assistant (2001)

PROFESSIONAL SERVICE

- Associate Editor, Journal of Geophysical Research—Planets, 2017-present
- Journal referee: ▪Science ▪Nature Geoscience ▪Geophysical Research Letters ▪Nature Communications
▪Journal of Geophysical Research—Planets ▪Icarus ▪Journal of Volcanology and Geothermal Research ▪IEEE Trans. on Geoscience and Remote Sensing ▪Precambrian Research
- NASA proposal review panel member and/or panel group chief for multiple mission selection, instrument selection, instrument development, and R&A programs
- NASA proposal external reviewer for multiple instrument development and R&A programs
- NSF proposal external reviewer for the Petrology and Geochemistry program
- External Reviewer for the United Kingdom Space Agency
- Strategic analysis group member, 2010 update of the Mars Exploration Program and Analysis Group (MEPAG) Goal IV—Preparation for Human Exploration
- Review panel member, Stony Brook University/Brookhaven National Laboratory Seed Grants
- Session Co-convenor: 2012 GSA Annual Meeting, Fall 2006 AGU Meeting session

MISSION AND INSTITUTE INVOLVEMENT

- OSIRIS-REx Mission, 2018-present: Participating Scientist Collaborator
- Mars Odyssey Thermal Emission Imaging System, 2018-present: Co-Investigator
- NASA SSERVI, 2014-present: Co-I, Remote, In-situ, Synchrotron Studies for Sci. & Explor. (RIS⁴E)
- Mars Exploration Rover Mission, 2005-2009: Athena Collaborator & Mini-TES Downlink Lead
- Mars Exploration Rover Mission, 2004-2005: Mini-TES Uplink Lead & Athena Student Collaborator

DEPARTMENTAL SERVICE (STONY BROOK UNIVERSITY DEPT. OF GEOSCIENCES)

- 2014-present: Geology Major Advisor and Undergraduate Committee member

- 2013-present: Library Liaison
- 2012-2014: Graduate Committee
- 2011-2012: Colloquium Coordinator
- 2009-2011: Museum Advisory Committee

TEACHING

- Remote Sensing (7 semesters, undergrad and grad level)
- Advanced Remote Sensing (1 semester, grad level)
- Geomorphology (1 semester, grad and undergrad level)
- Natural Hazards (10 semesters, undergrad level)
- Physical Geology Laboratory (2 semesters, undergrad level)

INVITED PRESENTATIONS

Purdue University, 2018
 UC-Boulder/LASP, 2016
 Southwest Research Institute (SwRI), 2016
 AGU Fall Meeting, 2014
 Louisiana State University, 2014
 Wesleyan University, 2014
 University of Pittsburgh, 2012
 College of Charleston, 2010
 Lunar and Planetary Institute (LPI), 2010
 East Tennessee State University, 2006
 AGU Fall Meeting, 2005
 Caltech, 2004

GRADUATE STUDENTS ADVISED

Alexandra Ahern – 2016-present
 Justin Cowart – 2016-present
 Brooke Phillips – 2016-present (co-advisor)
 Jason Gregerson – 2015-present (co-advisor)
 Gen Ito – 2014-present (co-advisor)
 Marcella Yant – 2012-2017, Ph.D. 2017
 Joseph Tamborski – 2012-2016 (co-advisor), Ph.D. 2016
 Cong Pan – 2010-2015, Ph.D. 2015
 Michael Thorpe – 2013-2014, M.S. 2014
 Elizabeth Sklute – 2012-2014 (co-advisor), Ph.D. 2014

POSTDOCS ADVISED

Joachim Audouard – 2015 – 2016, now a postdoctoral researcher at Laboratoire Atmosphères, Milieux, Observations Spatiales (LATMOS)
 Craig Hardgrove -- 2011 – 2012, now an Assistant Professor at Arizona State University

UNDERGRADUATE STUDENTS ADVISED

Alexander Kling, Dylan McDougall, Lauren Bunce, Steven Cantillo, Jamie Burgher, Lisa Jakubczyk, Katlyn LaFranca, Tarsila Carvahlo-Jesus, Stacey Rice, Lauren Garofalo, Jacob Gardner, Jerome Varriale, Kaitlin McIntosh, Matthew Ferrari, Jeffrey Finkelstein, Devin Justman, Michael Lomanoco, Katherine Schwarting, Corey-Jason Saile, Kei Shimizu, Sarah Gelman

EXTERNAL FUNDING HISTORY

Over \$3M in external funding, including 10 grants as PI or Science PI. Continued next page.

| DATE SUBMITTED | AGENCY/ PROGRAM | TITLE OF PROJECT |
|----------------|--------------------------|---|
| 10/2017 | NASA PSTAR | Co-I - Linking Thermophysical Properties of Mars to Earth: Analog Investigations of Past and Present Habitable Environments (PI: Christopher Edwards, Northern Arizona University, 3 Co-Is) |
| 7/2017 | NASA OSIRIS-REx PSP | Co-I - Radiative transfer and partial least squares modeling of OTES and OVIRS spectra in support of the asteroid operational phase of the OSIRIS-REx mission (PI: Timothy Glotch, 1 Co-I) |
| 2/2017 | NASA SSW | PI - Formation pathways, stability, hydration state and spectral characteristics of amorphous salts on Mars |
| 2/2017 | NASA PME | PI - Acquisition and Installation of a Controlled Environment Chamber (CEC) for Synthesis, Spectroscopy, and X-Ray Diffraction of Environmentally Sensitive Samples |
| 10/2016 | NASA MDAP | Co-I - The mineral stratigraphy of Noachis Terra: Towards unraveling the timing and conditions of aqueous alteration in the region (PI: Mikki Osterloo, 1 Co-I) |
| 9/2013 | NASA MDAP | PI - Coordinated spectral, thermophysical and morphological studies of rock-dominated units on Mars |
| 6/2013 | NY SeaGrant | Co-PI - The role of submarine groundwater discharge (SGD) in promoting hypoxia in Smithtown Bay (PI: Henry Bokuniewicz, 2 Co-PIs) |
| 4/2013 | NASA SSERVI | Co-I - Remote, In Situ, and Synchrotron Studies for Science and Exploration (PI: Timothy Glotch, 19 Co-Is) |
| 2/2013 | NASA NESSF | PI (Admin) - Regional Characterization of Spatial Variability in Submarine Groundwater Discharge: Understanding Flux Signatures in Thermal Infrared Data and Geologic Controls (Student PI: Joseph Tamborski) |
| 7/2012 | NASA MFRP | Co-I - Experimental investigations of alteration of the shallow martian crust: the role of magmatic fluids (PI: Hanna Nekvasil, one Co-I) |
| 10/2011 | NASA Early Career | PI - Infrared Studies of Mars-Relevant Materials to Enhance Interpretations of Remotely-Acquired Data Sets |
| 5/2011 | Arizona State University | PI - Mineralogical Analyses of Martian Impact Craters and Volcanic Terrains using Mars Odyssey THEMIS Data |
| 5/2011 | NASA PGG | PI - Investigation Of Crystallinity Controls On Near-Infrared And Thermal Infrared Spectra Of Sulfate Phases |
| 2/2011 | NASA NESSF | PI (Admin) - Investigation of Martian subsurface compositions by infrared studies of crater-hosted minerals (Student PI: Cong Pan) |
| 9/2010 | NASA MDAP | PI- Maximizing Information Extraction from the MGS TES Spectral Data Set |
| 9/2010 | NASA MDAP | Co-I - Exploring geologic processes in the deeper Martian crust through compositional studies of impact craters (PI: Joseph Michalski, 3 Co-Is) |
| 2/2009 | NASA MMAMA | Co-I - Evaluating new instrument technologies and operational procedures critical for maximizing science during field studies of basaltic terrains on the Earth, Moon and Mars (PI: Jacob Bleacher, 6 Co-Is) |

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| 8/2008 | NASA MDAP | Co-I - Global and local scale investigations of Martian surface composition from multiple data sets (PI: Victoria Hamilton, 1 Co-I) |
| 7/2008 | NASA MFRP | PI - Mid-infrared spectral characterization of sedimentary rocks and their constituent phases |
| 5/2008 | NASA PGG | Co-I - The Geomorphologic and Compositional Geology of Libya Montes and the Interbasin Plains of Northern Terra Tyrrhena, Mars (PI: James Skinner, 3 Co-Is) |
| 8/2007 | NASA MDAP | PI - High-resolution lithologic mapping of Iapygia and Tyrrhena Terra, Mars |
| 6/2007 | JPL | Co-I - TES and THEMIS Surface Mineralogy, Dust Cover, and Emissivity for MSL Landing Site Characterization (PI: Joshua Bandfield) |
| 8/2005 | NASA MDAP | Science PI - High-resolution Spectroscopic, Thermophysical and Morphologic Analysis of Martian Highlands Bedrock (PI: Oded Aharonson; Rogers authored entire Science/Technical portion) |

REFEREED PUBLICATIONS (PUBLISHED OR IN PRESS)

H-INDEX=19 I10-INDEX=30

* = student advisee author ° = post-doc advisee author

55. Ruff, S. W., J. L. Bandfield, P. R. Christensen, T. D. Glotch, V. E. Hamilton and **A. D. Rogers**, Rover-based Thermal Infrared Remote Sensing of Mars Using the Mini-TES Instrument, In: J. Bishop, J. Moersch, and J. F. Bell III (Eds.) *Remote Compositional Analysis*, Cambridge University Press, Cambridge, in press.

54. Hamilton, V. E., P. R. Christensen, J. L. Bandfield, **A. D. Rogers**, and C. S. Edwards, Thermal Infrared Spectral Analyses of Mars from Orbit Using TES and THEMIS, In: J. Bishop, J. Moersch, and J. F. Bell III (Eds.) *Remote Compositional Analysis*, Cambridge University Press, Cambridge, in press.

53. Bandfield, J. L. and **A. D. Rogers**, Thermal infrared spectral modeling, In: J. Bishop, J. Moersch, and J. F. Bell III (Eds.) *Remote Compositional Analysis*, Cambridge University Press, Cambridge, in press.

52. **Rogers, A. D.**, N. H. Warner, M. P. Golombek, J. W. Head, and *J. C. Cowart, Areal extensive surface bedrock exposures on Mars: Many are clastic rocks, not lavas, *Geophysical Research Letters*, 45, <https://doi.org/10.1002/2018GL077030>, 2018.

51. Sklute, E. C., **A. D. Rogers**, *J. C. Gregerson, H. B. Jensen, R. J. Reeder, and M. D. Dyar (in press), Amorphous salts formed from rapid dehydration of multicomponent chloride and ferric sulfate brines: Implications for Mars, *Icarus*, 302, 285-295, 2018.

50. *Yant, M. H., K. E. Young, **A. D. Rogers**, A. C. McAdam, J. E. Bleacher, J. L. Bishop, and S. A. Mertzman (in press), Visible, Near-Infrared and Mid-Infrared Spectral Characterization of Hawaiian Fumarolic Alteration near Kilauea's December 1974 Flow: Implications for Spectral Discrimination of Alteration Environments on Mars, *American Mineralogist*, MS #6116, 2017.

49. *Tamborski J. J., **A. D. Rogers**, and H. J. Bokuniewicz, Investigation of submarine groundwater discharge to tidal rivers: evidence for regional and local scale seepage. *Hydrological Processes*, doi: 10.1002/hyp.11079, 2017.

48. *Pan, C. and **A. D. Rogers**, Occurrence and scale of compositional heterogeneity in Martian dune fields: Toward understanding the effects of aeolian sorting on Martian sediment compositions, *Icarus*, 282, 56-69, <http://dx.doi.org/10.1016/j.icarus.2016.09.021>, 2017
47. Hood, D., T. Judice, S. Karunatillake, S., **D. Rogers**, J. Dohm, D. Susko, L. K. Carnes, Assessing the geologic evolution of Greater Thaumasia, Mars, *J. Geophys. Res.--Planets*, 121, 1753-1769, DOI: 10.1002/2016JE005046, 2016.
46. Karunatillake, S., J. J. Wray, O. Gasnault, S. M. McLennan, **A. D. Rogers**, S. W. Squyres, W. V. Boynton, J. R. Skok, N. E. Button and L. Ojha, The association of hydrogen with sulfur on Mars across latitudes, longitudes, and compositional extremes, *J. Geophys. Res.--Planets*, 121, 1321-1341, doi: 10.1002/2016JE005016, 2016.
45. Farrand, W. M., S. P. Wright, **A. D. Rogers**, T. D. Glotch, Basaltic glass formed from hydrovolcanism and impact processes: Characterization and clues for detection of mode of origin from VNIR through MWIR reflectance and emission spectroscopy, *Icarus*, 275, 16–28, doi:10.1016/j.icarus.2016.03.027, 2016.
44. *Yant, M., **A. D. Rogers**, H. Nekvasil, Y.-Y. S. Zhao, and T. Bristow, Spectral characterization of acid weathering products on Martian basaltic glass, *J. Geophys. Res.--Planets*, 121, 516–541, doi:10.1002/2015JE004969, 2016.
43. Hardgrove, C. J., **A. D. Rogers**, T. D. Glotch and J. A. Arnold, Thermal Emission Spectroscopy of Microcrystalline Sedimentary Phases: Effects of Natural Surface Roughness on Spectral Feature Shape, *J. Geophys. Res.--Planets*, 121, 542–555, doi:10.1002/2015JE004919, 2016.
42. *Pan, C., **A. D. Rogers**, and M. T. Thorpe, Quantitative Compositional Analysis of Sedimentary Materials Using Thermal Emission Spectroscopy: 2. Application to Compacted Fine-grained Mineral Mixtures and Assessment of Applicability of Partial Least Squares (PLS) Methods, *J. Geophys. Res.—Planets*, 120, 1984–2001, doi:10.1002/2015JE004881, 2015.
41. *Tamborski, J.J., **Rogers, A.D.**, Bokuniewicz, H.J., Cochran, J.K., Young, C.R., Identification and quantification of diffuse fresh submarine groundwater discharge via airborne thermal infrared remote sensing, *Remote Sensing of Environment*, <http://dx.doi.org/10.1016/j.rse.2015.10.010>, 2015.
40. *Thorpe, M. T., **A. D. Rogers**, T. F. Bristow, C. Pan (2015), Quantitative Compositional Analysis of Sedimentary Materials Using Thermal Emission Spectroscopy: 1. Application to Sedimentary Rocks, *J. Geophys. Res. Planets*, 120, doi:10.1002/2015JE004863, 2015.
39. **Rogers, A. D.** and H. Nekvasil, Feldspathic rocks on Mars: Compositional constraints from infrared spectroscopy and possible formation mechanisms, *Geophys. Res. Lett.*, 42, 2619-2626, doi: 10.1002/2015GL063501, 2015.
38. *Sklute, E. C., H. Jensen, **A. D. Rogers**, and R. J. Reeder, Morphological, Structural, and Spectral Characteristics of Amorphous Iron Sulfates, *JGR-Planets*, DOI: 10.1002/2014JE004784, 2015.
37. *Pan, C., **A. D. Rogers**, and J. R. Michalski, Thermal and Near-Infrared Analyses of Central Uplifts of Martian Impact Craters: Evidence for a Heterogeneous Martian Crust, *JGR-Planets*, DOI: 10.1002/2014JE004676, 2015.

36. **Rogers, A. D.** and V. E. Hamilton, Compositional Provinces of Mars from Statistical Analyses of TES, GRS, OMEGA and CRISM Data, *JGR-Planets*, 120, 62-91, doi:10.1002/2014JE004690, 2015.
35. Karunatillake, S., J. J. Wray, O. Gasnault, S. M. McLennan, **A. D. Rogers**, S. W. Squyres, W. V. Boynton, J. R. Skok, L. Ojha, and N. Olsen (2014), Sulfates hydrating bulk soil in the Martian low and middle latitudes, *Geophys. Res. Lett.*, 41, 7987–7996, doi:10.1002/2014GL061136, 2014.
34. Salvatore, M. R., J. F. Mustard, J. W. Head III, **A. D. Rogers**, and R. F. Cooper, The dominance of cold and dry alteration processes on recent Mars, as revealed through pan-spectral orbital analyses, *Earth and Planetary Science Letters*, 404, 261-272, 2014.
33. Lane, M. D. J. L. Bishop, M. D. Dyar, T. Hiroi, S. A. Mertzman, D. L. Bish, P. L. King, and **A. D. Rogers**, Mid-infrared emission spectroscopy and visible-near infrared reflectance spectroscopy of iron sulfate minerals, *American Mineralogist*, 100, 66-82, 2015.
32. Fergason, R. L. L. R. Gaddis, and **A. D. Rogers**, Hematite-bearing materials surrounding Candor Mensa in Candor Chasma, Mars: Implications for Hematite Origin and Post-Emplacement Modification, *Icarus*, 237C, pp. 350-365, doi:10.1016/j.icarus.2014.04.038, 2014.
31. Edwards, C. S., J. L. Bandfield, P. R. Christensen, **A. D. Rogers**, Impact Induced Decompression Melting of the Martian Mantle: The Formation of Widespread Infilled Craters and Inter crater Plains, *Icarus*, 228, 149-166, 2014.
30. **Rogers, A.D.** and A. H. Nazarian*, Evidence for Noachian flood volcanism in Noachis Terra, Mars and the possible role of Hellas impact basin tectonics, *Journal of Geophysical Research—Planets*, Vol. 118, p.1-20, doi:10.1002/jgre.20083, 2013.
29. Michalski, J. R., J. Cuadros, P. B. Niles, J. Parnell, **A. D. Rogers**, and S. P. Wright, Groundwater upwelling and the possibility of a deep biosphere on Mars, *Nature Geoscience*, doi:10.1038/ngeo1706, 2013.
28. Glotch, T. D. and **A. D. Rogers**, Evidence for magma-carbonate interaction beneath Syrtis Major, Mars, *J. Geophys. Res.*, 118, doi:10.1029/2012JE004230, 2013.
27. Hardgrove, C. J. and **A. D. Rogers**, Thermal Infrared and Raman Microspectroscopy of Moganite-bearing Rocks, *American Mineralogist*, 98, 78-84, 2013.
26. Skok, J. R., J. F. Mustard, L. L. Tornabene, *C. Pan, **A. D. Rogers**, S. Murchie, A Spectroscopic Analysis of Martian Crater Central Peaks: Formation of the Ancient Crust, *J. Geophys. Res.*, 117, E00J18, doi:10.1029/2012JE004148, 2012.
25. **Rogers, A. D.**, and R. L. Fergason, Regional-Scale Stratigraphy of Surface Units in Tyrrhena and Iapygia Terrae, Mars: Insights Into Highland Crustal Evolution and Alteration History, *J. Geophys. Res.*, doi:10.1029/2010JE003772, 2011.

24. **Rogers, A. D.**, Crustal Compositions Exposed By Impact Craters in the Tyrrhena Terra Region of Mars: Considerations for Noachian Environments, *Earth and Planetary Science Letters*, 301, 353-364, 10.1016/j.epsl.2010.11.020, 2011.
23. Williams, R. M. E., **A. D. Rogers**, M. Chojnacki, J. Boyce, K. D. Seelos, C. Hardgrove, F. Chuang, Evidence For Episodic Alluvial Fan Formation In Far Western Terra Tyrrhena, Mars, *Icarus*, doi:10.1016/j.icarus.2010.10.001, 2010.
22. Bandfield, J. L., **A. D. Rogers**, and C. S. Edwards, The Role of Aqueous Alteration of Martian Soils, *Icarus*, doi:10.1016/j.icarus.2010.08.028, 2010.
21. McSween, H. Y., I. O. McGlynn, **A. D. Rogers**, Determining the Modal Mineralogy of Martian Soils, *J. Geophys. Res.—Planets*, 115, E00F12, doi:10.1029/2010JE003582, 2010.
20. **Rogers, A. D.** and J. L. Bandfield, Mineralogical Characterization of Mars Science Laboratory Candidate Landing Sites from THEMIS and TES Data, *Icarus*, 203, 10.1016/j.icarus.2009.04.020, 2009.
19. **Rogers, A. D.**, O. Aharonson, and J. L. Bandfield, Geologic context of in situ rocky exposures in Mare Serpentis, Mars: Implications for crust and regolith evolution in the cratered highlands, *Icarus*, 200, 446-462, 2009.
18. Bandfield, J. L. and **A. D. Rogers**, Olivine dissolution by acidic fluids in Argyre Planitia, Mars: Evidence for a widespread process?, *Geology*, 36, 7, 579-582, 2008.
17. **Rogers, A. D.** and O. Aharonson, Mineralogical composition of sands in Meridiani Planum from MER data and comparison to orbital measurements, *J. Geophys. Res.—Planets*, 113, E06S14, doi:10.1029/2007JE002995, 2008.
16. Christensen, P. R., J. L. Bandfield, **A. D. Rogers**, T. D. Glotch, V. E. Hamilton, M. B. Wyatt, and S. W. Ruff, Global Mineralogy Mapped from the Mars Global Surveyor Thermal Emission Spectrometer, review chapter in “The Martian Surface: Composition, Mineralogy, and Physical Properties”, ed. J. F. Bell III, Cambridge University Press, New York, 2008.
15. Christensen, P. R., J. L. Bandfield, R. L. Fergason, V. E. Hamilton, and **A. D. Rogers**, The Compositional Diversity and Physical Properties Mapped from the Mars Odyssey Thermal Emission Imaging System (THEMIS), review chapter in “The Martian Surface: Composition, Mineralogy, and Physical Properties”, ed. J. F. Bell III, Cambridge University Press, New York, 2008.
14. H. Y. McSween, S. W. Ruff, R. V. Morris, R. Gellert, G. Klingelhöfer, P. R. Christensen, T. J. McCoy, A. Ghosh, J. M. Moersch, B. A. Cohen, **A. D. Rogers**, C. Schröder, S. W. Squyres, J. Crisp, and A. Yen, Mineralogy of volcanic rocks in Gusev crater, Mars: Reconciling Mössbauer, APXS, and Mini-TES spectra, *J. Geophys. Res.—Planets*, 113, E06S04, doi:10.1029/2007JE002970, 2008.
13. Calvin, W. M. and 19 others, Hematite spherules at Meridiani: Results from MI, Mini-TES, and Pancam, *J. Geophys. Res.—Planets*, 113, E12, E12S37, doi: 10.1029/2007JE003048, 2008.

12. Lichtenberg, K. A., R. E. Arvidson, F. Poulet, R. V. Morris, A. Knudson, J. F. Bell, G. Bellucci, J.-P. Bibring, W. H. Farrand, J. R. Johnson, D. W. Ming, P. C. Pinet, **A. D. Rogers**, S. W. Squyres, Coordinated Analyses of Orbital and Spirit Rover Data to Characterize Surface Materials on the Cratered Plains of Gusev Crater, Mars, *J. Geophys. Res.—Planets*, *112*, E12S90, doi:10.1029/2006JE002850, 2007.
11. Glotch, T. D. and **A. D. Rogers**, Evidence for aqueous deposition of hematite and sulfate-rich light-toned deposits in Aureum and Iani Chaos, Mars, *J. Geophys. Res.—Planets*, *112*, E06, E06001, 2007.
10. **Rogers, A. D.**, J. L. Bandfield, and P. R. Christensen, Global spectral classification of martian low-albedo regions with MGS-TES data, *J. Geophys. Res.—Planets*, *112*, E02004, doi:10.1029/2006JE002726, 2007.
9. **Rogers, A. D.**, and P. R. Christensen, Surface mineralogy of martian low-albedo regions from MGS-TES data: Implications for crustal evolution and surface alteration, *J. Geophys. Res.—Planets*, *112*, E01003, doi:10.1029/2006JE002727, 2007.
8. Glotch, T. D., J. L. Bandfield, P. R. Christensen, W. M. Calvin, S. M. McLennan, B. C. Clark, **A. D. Rogers**, and S. W. Squyres, Mineralogy of the light-toned outcrop at Meridiani Planum as seen by the Miniature Thermal Emission Spectrometer and implications for its formation, *J. Geophys. Res.—Planets*, *111*, doi:10.1029/2005JE002672, 2006.
7. **Rogers, A. D.**, P. R. Christensen, and J. L. Bandfield, Compositional heterogeneity of the ancient martian crust: Surface analysis of Ares Vallis bedrock with THEMIS and TES data, *JGR—Planets*, *110*, doi:10.1029/2005JE002399, 2005.
6. Christensen, P. R., H. Y. McSween, Jr., J. L. Bandfield, S. W. Ruff, **A. D. Rogers**, V. E. Hamilton, N. Gorelick, M. B. Wyatt, B. M. Jakosky, H. H. Kieffer, M. C. Malin, and J. E. Moersch, Evidence for Igneous Diversity and Magmatic Evolution on Mars from Infrared Spectral Observations, *Nature*, *436*, 7052, 504-509, doi:10.1038/nature03639, 2005.
5. Bandfield, J. L., **D. Rogers**, M. D. Smith, and P. R. Christensen, Atmospheric correction and surface spectral unit mapping techniques using Thermal Emission Imaging System data, *J. Geophys. Res.*, *109*, E10008, doi:10.1029/2004JE002289, 2004.
4. P. R. Christensen, M.B. Wyatt, T. D. Glotch, **A. D. Rogers**, R. E. Arvidson, J. L. Bandfield, D.L. Blaney, C. Budney, W. M. Calvin, R. L. Fergason, T.G. Graff, V.E. Hamilton, A. Hayes, J.R. Johnson, A.T. Knudson, H. Y. McSween, Jr., G. L. Mehall, L. K. Mehall, J.E. Moersch, R.V. Morris, M. D. Smith, S.W. Squyres, S. W. Ruff, and M.J. Wolff, Initial results from the Miniature Thermal Emission Spectrometer Experiment at the Opportunity Landing Site on Meridiani Planum, *Science*, *306*, 1733-1739, 2004.
3. P. R. Christensen, S. W. Ruff, R. L. Fergason, A.T. Knudson, R. E. Arvidson, J. L. Bandfield, D.L. Blaney, C. Budney, W. M. Calvin, T. D. Glotch, M. P. Golombek, T.G. Graff, V.E. Hamilton, A. Hayes, J.R. Johnson, H. Y. McSween, Jr., G. L. Mehall, L. K. Mehall, J.E. Moersch, R.V. Morris, **A. D. Rogers**, M. D. Smith, S.W. Squyres, M.J. Wolff, and M.B. Wyatt, Initial Results from the Miniature Thermal Emission Spectrometer Experiment at the Spirit Landing Site in Gusev Crater, *Science*, *305*, 837-842, 2004.

2. P. R. Christensen, S. W. Ruff, R. Fergason, N. Gorelick, B. M. Jakosky, M. D. Lane, A. S. McEwen, H. Y. McSween, G. L. Mehall, K. Milam, J. E. Moersch, S. M. Pelkey, **A. D. Rogers**, and M. B. Wyatt, Mars Exploration Rover candidate landing sites as viewed by THEMIS, *Icarus*, 176, 12-43, 2004.

1. **Rogers, D.** and P. R. Christensen, Age relationship of basaltic and andesitic surface compositions on Mars: Analysis of high-resolution TES observations of the northern hemisphere, *J. Geophys. Res.*, 108, 5030, doi:10.1029/2002JE001913, 2003.

OTHER PUBLICATIONS

Lim, D., Tripathi, A.B., Beaty, D.W., Budney, C., Delory, G., Eppler, D., Kass, D., Rice, J., **Rogers, D.**, and Segura, T. (2010), A reevaluation of the robotic precursor objectives and priorities related to preparation for the human exploration of Mars, 49 p. document posted March, 2010 by the Mars Exploration Program Analysis Group (MEPAG) at <http://mepag.jpl.nasa.gov/reports/index.html>.

SUBMITTED ARTICLES

* = student advisee author [∞] = post-doc advisee author

2. Young, K. E., J. Bleacher, **A. D. Rogers**, A. McAdam, W. B. Garry, P. Whelley, S. Scheidt, *G. Ito, C. Knudsen, L. Bleacher, N. Whelley, T. Graff, C. Evans, and T. Glotch, The Incorporation of Field Portable Instrumentation into Crewed Planetary Surface Exploration, submitted.

1. *Ito, G., **A. D. Rogers**, K. E. Young, J. E. Bleacher, C. S. Edwards, J. L. Hinrichs, C. I. Honniball, P. G. Lucey, D. Piquero, B. Wolfe, and T. D. Glotch, Incorporation of portable infrared spectral imaging into planetary geological field work: Analog studies at Kilauea Volcano, Hawaii and Potrillo Volcanic Field, New Mexico, submitted.