**A. DEANNE ROGERS**
**STONY BROOK UNIVERSITY, NY, USA**

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**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

## PROFESSIONAL SERVICE

- Editor, Journal of Geophysical Research—Planets, 2019-present
- Member, Committee on Planetary Protection, National Academies of Sciences, Engineering and Medicine, 2020-present
- Associate Editor, Journal of Geophysical Research—Planets, 2017-2019
- Journal referee: ▪Science ▪Nature Geoscience ▪Geophysical Research Letters ▪Nature Communications ▪Journal of Geophysical Research—Planets ▪Geology ▪American Mineralogist ▪Icarus ▪Journal of Volcanology and Geothermal Research ▪IEEE Trans. on Geoscience and Remote Sensing ▪Precambrian Research
- NASA mission selection, instrument selection, instrument development, and R&A programs, panel group chief and/or panelist
- NASA instrument development and R&A programs, external reviewer
- NSF Petrology and Geochemistry external reviewer
- United Kingdom Space Agency external reviewer
- Strategic analysis group member, 2010 update of the Mars Exploration Program and Analysis Group (MEPAG) Goal IV—Preparation for Human Exploration
- Science analysis group member, 2019, Ice and Climate Evolution Science Analysis Group (ICE-SAG), for the Mars Exploration Program and Analysis Group (MEPAG)
- Stony Brook University/Brookhaven National Laboratory Seed Grants external reviewer

## MISSION AND INSTITUTE INVOLVEMENT

- NASA SSERVI, 2019-present: Co-I, Remote, In-situ, Synchotron Studies for Sci. & Explor. 2 (RIS$^4$E2)
- OSIRIS-REx Mission, 2018-present: Participating Scientist Collaborator
- Mars Odyssey Thermal Emission Imaging System, 2018-present: Co-Investigator
- NASA SSERVI, 2014-2019: Co-I, Remote, In-situ, Synchotron Studies for Sci. & Explor. (RIS$^4$E)
- 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

## 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)

**DEPARTMENTAL SERVICE (STONY BROOK UNIVERSITY DEPT. OF GEOSCIENCES)**
▪ 2021-present: Graduate Program Director
▪ 2020-2021: Equity, Diversity, and Inclusion Committee
▪ 2020-2021: Master of Arts in Teaching Earth Sciences Advisor
▪ 2019-2021: Arts & Sciences Senate representative
▪ 2018-present: Graduate Committee
▪ 2014-2018: 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 (10 semesters, undergrad and grad level)
▪Advanced Remote Sensing (1 semester, grad level)
▪Geomorphology (1 semester, grad and undergrad level)
▪Environmental Geology (3 semesters, undergrad level)
▪Natural Hazards (10 semesters, undergrad level)
▪Physical Geology Laboratory (2 semesters, undergrad level)

**INVITED PRESENTATIONS**
GSA Annual Meeting, 2021
Rutgers-Newark University, 2020
Northern Arizona University, 2020
Arizona State University, 2019
GSA Annual Meeting, 2018
Purdue University, 2018
Space Science Institute, 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**
Prashani Ulapane – 2021-present (co-advisor)
Reed Hopkins – 2020-present
Carlos Gary Bicas – 2019-present
Laura Breitenfeld – 2018-present (co-advisor)
Alexandra Ahern – 2016-present
Justin Cowart – 2016-present
Bryan Howl – 2019-2021 (co-advisor), M.S., 2021

Jason Gregerson – 2015-2021 (co-advisor), M. S., 2019
Gen Ito – 2014-2018 (co-advisor), Ph.D. 2018
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**

Ranae Ward, Ranger Agte, Jahongir Usmonov, Kevin Gascott, Alexander Kling, Grace Kim, 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 $5M in external funding, including 14 grants as PI or Science PI. Continued next page.

| DATE SUBMITTED | AGENCY/ PROGRAM | TITLE OF PROJECT |
|---|---|---|
| 10/2020 | NASA MDAP | Co-I -- Constraining the Composition of Pre- to Early-Noachian Crustal Blocks Surrounding Argyre, Hellas, and Isidis (Science PI: Michael Phillips, APL; PI: Jeffrey Moersch, UT-Knoxville) |
| 6/2019 | NASA PDART | PI -- Rock Thermal Inertia and Conductivity Measurements Under Martian Atmospheric Pressures |
| 6/2019 | NASA PDART | Co-I -- Improving THEMIS-based Compositional Analysis Accessibility: Generation of Emissivity Products and Processing Tools (PI: Christopher Edwards, 2 Co-Is) |
| 12/2018 | NASA SSERVI | Co-I -- Remote, In Situ, and Synchrotron Studies for Science and Exploration 2 (PI: Timothy Glotch) |
| 10/2017 | NASA MDAP | PI - Origins, preservation and exposure histories of rock units in Noachian plains |
| 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 |

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|---|---|---|
| 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) |
| 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=25 i10-INDEX=40

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

70. **Rogers, A. D.** and W. M. Farrand (2022), Spectral evidence for alkaline rocks and compositional diversity among feldspathic light-toned terrains on Mars, Icarus, 376, 114883, https://doi.org/10.1016/j.icarus.2022.114883.

69. *Breitenfeld, L. B., **Rogers, A. D.**, Glotch, T. D., Hamilton, V. E., Christensen, P. R., Lauretta, D. S., Gemma, M. E., Howard, K. T., Ebel, D. S., *Kim, G., *Kling, A. M., Nekvasil, H., & DiFrancesco, N. J. (2021). Machine Learning Mid-Infrared Spectral Models for Predicting Modal Mineralogy of CI/CM Chondritic Asteroids and Bennu, JGR-Planets, in press.

68. *Cowart, J. C. and **A. D. Rogers** (2021), Investigating Sources of Spectral Olivine Enrichments in Martian Bedrock Plains Using Diurnal Emissivity Changes in THEMIS Multispectral Images, JGR-Planets, 126, e2021JE006947 https://doi.org/10.1029/2021JE006947

67. Pan, C., C. S. Edwards, and **A. D. Rogers** (2021), Evaluating Flat-Crater Floor Fill Compositions and Morphologies: Insight into Formation Processes, JGR-Planets, https://doi.org/10.1029/2021JE006919.

66. Hamilton, V. E., Christensen, P. R., Kaplan, H. H., Haberle, C. W., **Rogers, A. D**., Glotch, T. D., *Breitenfeld, L. B., Goodrich, C. A., Schrader, D. L., McCoy, T. J., Lantz, C., Hanna, R. D., Simon, A. A., Brucato, J. R., Clark, B. E., & Lauretta, D. S. (2021). Evidence for limited compositional and particle size variation on asteroid (101955) Bennu from thermal infrared spectroscopy. *Astronomy and Astrophysics*, 650, 1–13. https://doi.org/10.1051/0004-6361/202039728

65. *Ahern, A. A., **Rogers, A. D**., Edwards, C. S., & Piqueux, S. (2021). Thermophysical Properties and Surface Heterogeneity of Landing Sites on Mars from Overlapping Thermal Emission Imaging System (THEMIS) Observations. *Journal of Geophysical Research: Planets,* 126(6), 1–30. https://doi.org/10.1029/2020je006713.

64. *Gary-Bicas, C. E., & **Rogers, A. D.** (2021). Geologic and Thermal Characterization of Oxia Planum Using Mars Odyssey THEMIS Data. *Journal of Geophysical Research: Planets*, 126(2), 1–27. https://doi.org/10.1029/2020JE006678

63. Farrand, W. H., J. W. Rice, F. C. Chuang, **A. D. Rogers** (2020), Spectral and geological analyses of domes in western Arcadia Planitia, Mars: Evidence for intrusive alkali-rich volcanism and ice-associated surface features, *Icarus,* https://doi.org/10.1016/j.icarus.2020.114111.

62. Warner, N.H., A. J. Schuyler, **A. D. Rogers**, M. P. Golombek, J. Grant, S. Wilson, C. Weitz, N. Williams, F. Calef (2020), Crater Morphometry on the Mafic Floor Unit at Jezero Crater, Mars: Comparisons to a Known Basaltic Lava Plain at the InSight Landing Site, *Geophysical Research Letters*, https://doi.org/10.1029/2020GL089607.

61. Ruff, S. W., J. L. Bandfield, P. R. Christensen, T. D. Glotch, V. E. Hamilton and **A. D. Rogers** (2020), 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, DOI: 10.1017/9781316888872.

60. Hamilton, V. E., P. R. Christensen, J. L. Bandfield, **A. D. Rogers**, and C. S. Edwards (2020), 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, DOI: 10.1017/9781316888872.

59. Bandfield, J. L. and **A. D. Rogers** (2020), Thermal infrared spectral modeling, In: J. Bishop, J. Moersch, and J. F. Bell III (Eds.) *Remote Compositional Analysis*, Cambridge University Press, Cambridge, DOI: 10.1017/9781316888872.

58. Tu, S., S. Lobanov, J. Bai, H. Zhong, J. Gregerson, **A. D. Rogers**, L. Ehm, J. Parise (2019), Enhanced Formation of Solvent-Shared Ion Pairs in Aqueous Calcium Perchlorate Solution Towards Saturated Concentration or Deep Supercooling Temperature and Its Effects on Water Structure, *J. Phys. Chem. B* 2019, 123, 45, 9654-9667.

57. *Cowart, J. C., **A. D. Rogers**, and C. S. Edwards (2019), Mapping and Characterization of Martian Intercrater Bedrock Plains: Insights into Resurfacing Processes in the Martian Cratered Highlands, *J. Geophysical Res.—Planets,* https://doi.org/10.1029/2019JE006062.

56. Nekvasil, H., N. J. DiFrancesco, **A. D. Rogers**, A. E. Coraor, P. L. King, Vapor-Deposited Minerals Contributed to the Martian Surface During Magmatic Degassing (2019), *J. Geophysical Res.—Planets*, https://doi.org/10.1029/2018JE005911.

55. Michalski, J. R., T. D. Glotch, **A. D. Rogers**, P. B. Niles, J. Cuadros, J. Ashley, S. S. Johnson (2019), The geology and astrobiology of McLaughlin Crater, Mars: an ancient lacustrine basin containing turbidites, mudstones and serpentinites, *J. Geophysical Res.—Planets*, https://doi.org/10.1029/2018JE005796.

54. 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 (2018), The Incorporation of Field Portable Instrumentation into Crewed Planetary Surface Exploration, *Earth and Space Science*, https://doi.org/10.1029/2018EA000378.

53. *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 (2018), Incorporation of portable infrared spectral imaging into planetary geological field work: Analog studies at Kilauea Volcano, Hawaii and Potrillo Volcanic Field, New Mexico, *Earth and Space Science*, https://doi.org/10.1029/2018EA000375.

52. **Rogers, A. D.,** N. H. Warner, M. P. Golombek, J. W. Head, and *J. C. Cowart (2018), Areally 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 (2018), 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 (2018), 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 Intercrater 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.

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