A. DEANNE ROGERS
STONY BROOK UNIVERSITY, NY, USA

EXPERTISE AND RESEARCH INTERESTS: surface processes and compositions of planets and small bodies; infrared spectroscopy; planetary remote sensing; laboratory spectroscopic and thermophysical studies of planetary analog materials; machine learning; multivariate analysis; field-based spectral and geological studies of planetary analog sites; solid earth remote sensing with environmental and hazards applications.

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, 2020-2022
- 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 ▪Planetary Science Journal
- Review panel group chief or panelist: NASA mission selection, instrument selection, instrument development, and R&A programs
- External reviewer: ▪NASA instrument development and R&A programs ▪NSF Petrology and Geochemistry ▪United Kingdom Space Agency R&A programs ▪Stony Brook University/Brookhaven National Laboratory Seed Grants ▪NASA Planetary Data System (PDS)
- 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)

MISSION AND INSTITUTE INVOLVEMENT

- NASA Mars Science Laboratory Mission, 2022-present: Participating Scientist
- NASA SSERVI, 2019-present: Co-I, Remote, In-situ, Synchr. Studies for Sci. & Explor. 2 (RIS^{4}E2)
- Mars Odyssey Thermal Emission Imaging System, 2018-present: Co-Investigator
- OSIRIS-REx Mission, 2018-2023: Participating Scientist Collaborator
- NASA SSERVI, 2014-2019: Co-I, Remote, In-situ, Synchrotron 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, founding member
- 2020-2021: Master of Arts in Teaching Earth Sciences Advisor
- 2019: Low-T Geochemistry faculty search committee chair
- 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 (11 semesters, undergrad and grad level)
- Advanced Remote Sensing (1 semester, grad level)
- Geomorphology (2 semesters, grad and undergrad level)
- Environmental Geology (4 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 (remote), 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

Reed Hopkins – 2020-present
Carlos Gary Bicas – 2019-2023, Ph.D., 2023
Laura Breitenfeld – 2018-2023 (co-advisor), Ph.D., 2023
Alexandra Ahern – 2016-2022, Ph.D., 2022
Justin Cowart – 2016-2022, Ph.D., 2022
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

Alexandra Ahern – 2022-present
Joachim Audouard – 2015 – 2016, now a postdoctoral researcher at Laboratoire Atmosphères, Milieux, Observations Spatiales (LATMOS)
Craig Hardgrove -- 2011 – 2012, now an Associate Professor at Arizona State University

UNDERGRADUATE STUDENTS ADVISED

Sarah Rivera, Stanley Brackett, Amy Lin, Jiefu Li, 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 $7M in external funding (excluding SSERVI awards), including 17 grants as PI or Science PI.
Continued next page.

DATE SUBMITTED	AGENCY/ PROGRAM	TITLE OF PROJECT (Indicate Role of Candidate, e.g., PI or Co-PI)	AMOUNT REQUESTED	AWARD PERIOD	AMOUNT AWARDED
5/2023	DOE-NNSA	Co-I -- Remote Detection of Uranium Mining and Milling Activity (PI – Martin Schoonen, 6 Co-Is)	SBU portion: $295,107	9/2023 – 8/2025	$295,107
2/2023	NASA FINESST	PI -- Characterizing X-ray Amorphous Sulfates Relevant to Mars through Spectral and Structural Analysis (Science PI – Reed Hopkins)	$127,472	9/2023 – 2/2026	$127,472
1/2023	NASA SSW	Co-I -- Seeking Clues to Martian Ignimbrites from Terrestrial Examples (PI: Steve Ruff, 2 Co-Is)	SBU portion: $193,264	7/2023 - 6/2026	$193,264
6/2022	Mars Odyssey Project	PI -- High-resolution mapping of shallow permafrost depths in the northern plains	$150,000	10/2022-9/2025	$150,000
10/2021	NASA/ MSL Participating Sci.	PI -- Constraints on the formation and diagenetic history of Gale crater strata from physical properties	$480,172	4/15/2022-4/14/2025	$480,172
10/2019	NASA /MDAP	Co-I -- Constraining the Composition of Pre- to Early-Noachian Crustal Blocks Surrounding Argyre, Hellas, and Isidis (PI: Jeff Moersch, UT-Knoxville)	$28,490	9/1/2020-8/31/2023	$28,490
6/2019	Mars Odyssey Project	PI -- Spectral and thermophysical investigations of hydrous mineral deposits and enigmatic volcanic terrains on Mars	$150,000	10/2019-9/2022	$150,000
6/2019	NASA PDART	PI -- Rock Thermal Inertia and Conductivity Measurements Under Martian Atmospheric Pressures	$189,026	1/2020 - 12/2022	$189,026

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)	$XXXX (SBU portion: $30,229)	1/2020 - 12/2023	$30,229
12/2018	NASA SSERVI	Co-I -- Remote, In Situ, and Synchrotron Studies for Science and Exploration 2 (PI: Timothy Glotch)	~$5M	2019-2014	~5M
10/2017	NASA MDAP	PI - Origins, preservation, and exposure histories of rock units in Noachian plains	$487,234 (SBU portion: $293,101)	5/2018 - 4/2021	$487,234
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)	$XXXX (SBU portion: $184,644)	8/2018 – 7/2012	$184,644
2/2017	NASA SSW	PI - Formation pathways, stability, hydration state and spectral characteristics of amorphous salts on Mars	$674,525	2/2018-1/2021	$608,073
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	$128,083	2/2018-1/2019	$128,083
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)	$308,405 (SBU portion: $140,597)	5/2017 – 4/2020	$308,405
9/2013	NASA MDAP	PI - Coordinated spectral, thermophysical and morphological studies of rock-dominated units on Mars	$385,355	4/2014-3/2017	$385,355
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)	$254,221	2/2014-1/2016	$254,221
4/2013	NASA SSERVI	Co-I - Remote, In Situ, and Synchrotron Studies for Science and Exploration (PI: Timothy Glotch, 19 Co-Is)	$5.4M	1/2014-12/2018	$5.4M
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)	$90,000	9/2013-8/2016	$90,000
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)	$349,392	1/2013-12/2015	$349,392

10/2011	NASA Early Career	PI - Infrared Studies of Mars-Relevant Materials to Enhance Interpretations of Remotely-Acquired Data Sets	$100,000	8/2013-8/2016	$100,000
5/2011	Mars Odyssey Project	PI - Mineralogical Analyses of Martian Impact Craters and Volcanic Terrains using Mars Odyssey THEMIS Data	$100,000	6/2011 – 9/2016	$100,000
5/2011	NASA PGG	PI - Investigation of Crystallinity Controls On Near-Infrared And Thermal Infrared Spectra Of Sulfate Phases	$340,000	8/2012-8/2014	$340,000
2/2011	NASA NESSF	PI (Admin) - Investigation of Martian subsurface compositions by infrared studies of crater-hosted minerals (Student PI: Cong Pan)	$90,000	9/2011-8/2014	$90,000
9/2010	NASA MDAP	PI- Maximizing Information Extraction from the MGS TES Spectral Data Set	$172,286	5/2011-8/2014	$172,286
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)	$392,227 (SBU portion: $60,083)	5/2011-5/2014	$60,083
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)	$287,202 (SBU portion: $43,433)	8/2009-8/2014	$43,433
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)	$412,293 (SBU portion: $129,826)	4/2009-4/2014	$80,248
7/2008	NASA MFRP	PI - Mid-infrared spectral characterization of sedimentary rocks and their constituent phases	$381,562	7/2009-6/2014	$381,562
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)	$487,182 (SBU portion: $67,000)	1/2009-12/2012	$67,000
8/2007	NASA MDAP	PI - High-resolution lithologic mapping of Iapygia and Tyrrhena Terra, Mars	$172,469	4/2008-3/2011	$172,469
6/2007	JPL	Co-I - TES and THEMIS Surface Mineralogy, Dust Cover, and Emissivity for MSL Landing Site Characterization (PI: Joshua Bandfield)	$154,945 (SBU portion: $67, 930)	9/2007 – 8/2009	$67,930
8/2005	NASA MDAP	Science PI - High-resolution Spectroscopic, Thermophysical and Morphologic Analysis of	not avail.	7/2006-7/2009	not avail. (won award while

		Martian Highlands Bedrock (PI: Oded Aharonson; Rogers authored entire Science/Technical portion)			employed at Caltech)

REFEREED PUBLICATIONS (PUBLISHED OR IN PRESS)
H-INDEX=28 i10-INDEX=51

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

80. Michalski, J. R., **A. D. Rogers**, C. Edwards, A. Cowart, and L. Xiao (2024), Diverse volcanism and crustal recycling on early Mars, *Nature Astronomy,* https://doi.org/10.1038/s41550-023-02191-7.

79. Hopkins, R. J.*, E. C. Sklute, M. D. Dyar, **A. D. Rogers**, R. Clark, R. McKeegan (2023), Visible/near-infrared, Mid-infrared, and Raman Spectroscopy of Mars Regolith Analogue Materials in Rapidly Desiccated Ferric Sulfate and Sodium Chloride Brines, *Planet. Sci. Journal.* **4** 173, **DOI** 10.3847/PSJ/aced52

78. McSween, H. Y., J. W. Head, **A. D. Rogers**, and M. E. Schmidt (2023), Assessing Global Trends in Mars Magma Compositions using Ground Truth, Meteoritics & Planetary Sci., http://doi.org/10.1111/maps.14057.

77. **Rogers, A. D.**, S. W. Ruff, and M. D. Smith (2023), Thermal infrared spectral characteristics of Martian dust deposits and evidence for atmosphere-regolith interactions, *Icarus,* https://doi.org/10.1016/j.icarus.2023.115687.

76. Pankine, A. A., J. L. Bandfield, T. H. McConnochie, and **A. D. Rogers** (2023). Re-calibration of Mars Global Surveyor Thermal Emission Spectrometer spectra. 1. Methodology and re-derived data products: Aerosol opacities and surface emissivities. Planetary and Space Science, 229, 105673. https://doi.org/https://doi.org/10.1016/j.pss.2023.105673

75. Gary-Bicas, C. E.*, T. I. Michaels, **A. D. Rogers**, L. K. Fenton, N. H. Warner, J. C. Cowart* (2022), Investigating the Role of Amazonian Mesoscale Wind Patterns and Strength on the Spatial Distribution of Martian Bedrock Exposures, JGR-Planets, https://doi.org/10.1029/2022JE007496

74. Breitenfeld, L. B.*, **Rogers, A. D.,** Glotch, H. H. Kaplan, T. D., Hamilton, V. E., Christensen, P. R., Mapping Phyllosilicates on the Asteroid Bennu Using Thermal Emission Spectra and Machine Learning Model Applications, *Geophysical Research Letters*, https://doi.org/10.1029/2022GL100815.

73. Ye, C., C. Pan, C. S. Edwards, and **A. D. Rogers**, Simplified Automatic Atmospheric Correction for THEMIS Infrared Data, *Earth and Space Sciences*, https://doi.org/10.1029/2022EA002471

72. Phillips, M. S., Viviano, C. E., Moersch, J. E., **Rogers, A. D**., McSween, H. Y., & Seelos, F. P. (2022). Extensive and ancient feldspathic crust detected across north Hellas rim, Mars: Possible implications for primary crust formation. *Geology*. Geological Society of America. https://doi.org/10.1130/g50341.1

71. Ruff, S. W., Hamilton, V. E., **Rogers, A. D.,** Edwards, C. S., & Horgan, B. H. N. (2022). Olivine and carbonate-rich bedrock in Gusev crater and the Nili Fossae region of Mars may be altered ignimbrite deposits. *Icarus*. https://doi.org/10.1016/j.icarus.2022.114974

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.

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MANUSCRIPTS UNDER REVIEW

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