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## PUBLICATIONS:

Books:

Total: 1

**Ramsey, M.S., [Natural Disasters: Recitation Manual](#) (3<sup>rd</sup> ed.), Kendall Hunt Publishing, Dubuque, IA, ISBN: 978-1-5249-4807-8, 2018.**

Peer-Reviewed Articles (Published/In Press):

Total: 56

Chiasera, B., Rooney, T.O., Girard, G., Yirgu, G., Grosfils, E., Ayalew, D., Mohr, P., Zimbelman, J., **Ramsey, M.S.**, Magmatically assisted off-rift extension - the case for broadly distributed strain accommodation, *Geosphere (in press)*, 2018.

Krippner, J.B.\*, Belousov A.B., Belousova M.G. and **Ramsey, M.S.**, [Parametric analysis of lava dome-collapse events and pyroclastic deposits at Shiveluch volcano, Kamchatka, using orbital visible and infrared data](#), *J. Volc. Geotherm. Res.*, 354, 115-129, 2018.

Crown, D.A. and **Ramsey, M.S.**, [Morphologic and thermophysical characteristics of lava flows southwest of Arsia Mons, Mars](#), *J. Volcanol. Geotherm. Res.*, doi: 10.1016/j.jvolgeores.2016.07.008, 2016.

Reath, K.A.\*, **Ramsey, M.S.**, Dehn, J., Webley, P.W., [Predicting eruptions from precursory activity using remote sensing data hybridization](#), *J. Volcanol. Geotherm. Res.*, 321, 18-30, 2016.

**Ramsey, M.S.**, Crown, D.A. and Harris, A.J.L., [What can thermal infrared remote sensing of terrestrial volcanoes tell us about processes past and present on Mars?](#), (invited review article): *J. Volcanol. Geotherm. Res.*, 311, 198-216, 2016.

Price, M.A.\*, **Ramsey, M.S.** and Crown, D.A., [Satellite-Based Thermophysical Analysis of Volcaniclastic Deposits: A Terrestrial Analog for Mantled Lava Flows on Mars](#), *Remote Sens.*, 8, 152; doi:10.3390/rs8020152, 2016.

Harris, A.J.L., Carn, S., Dehn, J., Del Negro, C., Guðmundsson, M. T., Cordonnier, B., Barnie, T., Chahi, E., Calvari, S. Catry, T., de Groeve, T., Coppola, D., Davies, A., Favalli, M., Ferrucci, F., Fujita, E., Ganci, G., Garel, F., Huet, P., Kauahikaua, J., Kelfoun, K., Lombardo, V., Macedonio, G., Pacheco, J., Patrick, M., Pergola, N., **Ramsey, M.**, Rongo, R., Sahy, F., Smith, K., Tarquini, S., Thordarson, T., Villeneuve, N., Webley, P., Wright, R. and Zakšek, K., Conclusion: Recommendations and findings of the RED SEED working group, in: Harris, A.J.L., De Groeve, T., Garel, F. & Carn, S.A. (eds.), *Detecting, Modelling and Responding to Effusive Eruptions*, *Geol. Soc., London, Special Publications*, 426, doi:10.1144/SP426.11, 567-648, 2016.

Harris, A.J., Dehn, J., Webley, P., Wright, R., Pergola, N., Lombardo, V., **Ramsey, M.**, Davies, A., Ganci, G., Coppola, D., Gué, Y. and Zakšek, K., Appendix A: Collation of hot spot detection algorithms, in: Harris, A.J.L., De Groeve, T., Garel, F. & Carn, S.A. (eds.), *Detecting, Modelling and Responding to Effusive Eruptions*, *Geol. Soc., London, Special Publications*, 426, 2016.

Patrick, M.R., Kauahikaua, J., Davies, A., **Ramsey, M.**, Antolik, L. and Lee, L., [Operational thermal remote sensing and lava flow monitoring at the Hawaiian Volcano Observatory](#), in: Harris, A.J.L., De Groeve, T., Garel, F. & Carn, S.A. (eds.), *Detecting, Modelling and*

- Responding to Effusive Eruptions, *Geol. Soc., London, Special Publications*, 426, doi: 10.1144/SP426.17, 489-503, 2016.
- Ramsey, M.S., Synergistic use of satellite thermal detection and science: A decadal perspective using ASTER**, in: Harris, A.J.L., De Groeve, T., Garel, F. & Carn, S.A. (eds.), *Detecting, Modelling and Responding to Effusive Eruptions, Geol. Soc., London, Special Publications*, 426, doi:10.1144/SP426.23, 115-136, 2016.
- Ramsey, M.S., Byrnes, J., Wessels, R. and Izbekov, P., Applications of high-resolution satellite remote sensing for the Northern Pacific volcanic arcs**, in Dean, K.G. and Dehn, J., (eds.), *Monitoring Volcanoes in the North Pacific: Observations From Space, Springer-Praxis Books, ISBN: 978-3-540-24125-6*, p. 79-100, 2015.
- Ramsey, M.S., Temperature and textures of ash flow surfaces: Sheveluch, Kamchatka, Russia (4 June 2004)**, in Dean, K.G. and Dehn, J., (eds.), *Monitoring Volcanoes in the North Pacific: Observations from Space (suppl. DVD), Springer-Praxis Books, ISBN: 978-3-540-24125-6*, 389 pp., 2015.
- Rose, S.R.\* and **Ramsey, M.S., The 2005 and 2007 eruptions of Klyuchevskoy Volcano, Russia: Behavior and effusion mechanisms**, in Dean, K.G. and Dehn, J., (eds.), *Monitoring Volcanoes in the North Pacific: Observations from Space (suppl. DVD), Springer-Praxis Books, ISBN: 978-3-540-24125-6*, 389 pp., 2015.
- Hall, J.L., Boucher, R.H., Buckland, K.N., Gutierrez, D.J., Hackwell, J.A., Johnson, B.R., Keim, E.R., Moreno, N.M., **Ramsey, M.S.**, Sivjee, M.G., Tratt, D.M., Warren, D.W., Young, S.J., **MAGI: A New High-Performance Airborne Thermal Infrared Imaging Spectrometer for Earth Science Applications**, *IEEE Trans. Geosci. Rem. Sens.*, 53(10), 5447-5457, doi: 10.1109/TGRS.2015.2422817, 2015.
- Realmuto, V.J., Dennison, P.E., Foote, M., **Ramsey, M.S.**, Wooster, M.J., Wright, R., **Specifying the saturation temperature for the HypsIRI 4- $\mu$ m channel**, *Rem. Sens. Environ.*, doi: 10.1016/j.rse.2015.04.028, 2015.
- Rooney, T.O., Bastow, I.D., Keir, D., Mazzarini, F., Movsesian, E., Grosfils, E.B., Zimbelman, J.R., **Ramsey, M.S.**, Ayalew, D. and Yirgu, G., **The protracted development of focused magmatic intrusion during continental rifting**, *Tectonics*, doi: 10.1002/2013TC003514, 2014.
- Rose, S.R.\*, Watson, I.M., **Ramsey, M.S.** and Hughes, C.G.\*, **Thermal deconvolution: Accurate retrieval of multispectral infrared emissivity from thermally-mixed volcanic surfaces**, *Rem. Sens. Environ.*, 140, 690-703, 2014.
- Graetinger, A.H.\*, Ellis, M.K., Skilling, I.P., Reath, K.\*, **Ramsey, M.S.**, Lee, R.J.\*, Hughes, C.G.\*, McGarvie, D.W., **Remote sensing and geologic mapping of glaciovolcanic deposits in the region surrounding Askja (Dyngjufjöll) volcano, Iceland**, *Int. J. Rem. Sens.*, 113, doi: 10.1080/01431161.2013.817716, 7178-7198, 2013.
- Hughes, C.G.\* and **Ramsey, M.S., A radiometrically-accurate super-resolution approach to thermal infrared image data**, *Int'l J. Image Data Fusion*, doi: 10.1080/19479832.2012.711377, 2013.
- Lee, R.J.\*, **Ramsey, M.S.** and King, P.L., **Development of a novel laboratory technique for high-temperature thermal emission spectroscopy of silicate melts**, *J. Geophys. Res.*, 118, doi:10.1002/jgrb.50197, 2013.
- Ramsey, M.S.** and Harris, A.J.L., **Volcanology 2020: How will thermal remote sensing of volcanic surface activity evolve over the next decade?, (invited review article): J. Volcanol. Geotherm. Res., 249, 217-233, 2013.**
- Reath, K.A.\* and **Ramsey, M.S., Exploration of geothermal systems using hyperspectral thermal infrared remote sensing**, *J. Volc. Geotherm. Res.*, 265, 27-38, 2013.
- Ramsey, M.S.**, Wessels, R.L. and Anderson, S.W., **Surface textures and dynamics of the 2005 lava dome at Shiveluch Volcano, Kamchatka**, *Geol. Soc. Amer. Bull.*, doi:10.1130/B30580.1, (cover issue), 2012.

- Wright, S.P.\*, Tornabene, L.L. and **Ramsey, M.S.**, **Remote Sensing of Impact Craters**, in Osinski G.R. and Pierazzo E. (eds.), Ch. 13: Impact Cratering: Processes and Products, *Wiley-Blackwell*, ISBN: 978-1-4051-9829-5, 330 pp., 2012.
- Scheidt, S.\*, Lancaster, N. and **Ramsey, M.**, **Eolian dynamics and sediment mixing in the Gran Desierto, Sonora, MX: Fusion of infrared orbital and emission spectroscopy data**, *Geol. Soc. Amer. Bull.*, doi: 10.1130/B30338.1, 2011.
- Carter, A.J.\* and **Ramsey, M.S.**, **Long-term volcanic activity at Shiveluch Volcano: Nine years of ASTER spaceborne thermal infrared observations**, *Remote Sens.* 2(11), doi:10.3390/rs2112571, 2571-2583, 2010.
- Hughes, C.G.\* and **Ramsey, M.S.**, **Super-resolution of THEMIS thermal infrared data: Creating radiometrically-accurate, sub-100 meter resolution images of Mars**, *Icarus*, 208, 704-720, doi:10.1016/j.icarus.2010.02.023, 2010.
- Lee, R.J.\*, King, P.L. and **Ramsey, M.S.**, **Spectral analysis of synthetic quartzofeldspathic glasses using laboratory thermal infrared spectroscopic methods**, *J. Geophys. Res.*, 115, B06202, doi:10.1029/2009JB006672, 2010.
- Scheidt, S.\*, **Ramsey, M.S.** and Lancaster, N., **Determining soil moisture and sediment availability at White Sands Dune Field, NM from apparent thermal inertia (ATI) data**, *J. Geophys. Res.*, 115, F02019, doi:10.1029/2009JF001378, 2010.
- Wessels, R.L., Schneider, D.J., Coombs, M.L., Dehn, J. and **Ramsey, M.S.**, **High-resolution satellite and airborne thermal infrared imaging of the 2006 eruption of Augustine Volcano, Alaska**, in *The 2006 eruption of Augustine Volcano, Alaska*, Power, J.A., Coombs, M.L. and Freymueller, J.T., (eds.), U.S. Geological Survey, Professional Paper #1769, 527-553, 2010.
- Carter, A.J.\* and **Ramsey, M.S.**, **ASTER- and field-based observations at Bezymianny Volcano: Focus on the 11 May 2007 pyroclastic flow deposit**, *Rem. Sens. Environ.*, 113, 2142-2151, 2009.
- Carter, A.J.\*, **Ramsey, M.S.**, Durant, A.J., Skilling, I.P. and Wolfe, A.L., **Micron-scale roughness of volcanic surfaces from thermal infrared spectroscopy and scanning electron microscopy**, *J. Geophys. Res.*, 114, B02213, doi:10.1029/2008JB005632, 2009.
- Duda, K.A., **Ramsey, M.**, Wessels, R. and Dehn, J., **Optical satellite volcano monitoring: A multi-sensor rapid response system**, in: P.P. Ho, (ed.), *Geoscience and Remote Sensing, IN-TECH Press, Vukovar, Croatia*, ISBN 978-953-307-003-2, 473-496, 2009.
- Rose, S.R.\* and **Ramsey, M.S.**, **The 2005 eruption of Kliuchevskoi volcano: Chronology and processes derived from ASTER spaceborne and field-based data**, *J. Volc. Geotherm. Res.*, 184, 367-380, 2009.
- Carter, A.J.\*, Girina, O., **Ramsey, M.S.** and Demyanchuk, Y.V., **ASTER and field observations of the 24 December 2006 eruption of Bezymianny Volcano, Russia**, *Rem. Sens. Environ.*, 112, 2569-2577, doi: 10.1016/j.rse.2007.12.001, 2008.
- Scheidt, S.\*, **Ramsey, M.S.** and Lancaster, N., **Radiometric normalization and image mosaic generation of ASTER thermal infrared data: An application to extensive sand sheets and dune fields**, *Rem. Sens. Environ.*, 112, 920-933, doi: 10.1016/j.rse.2007.06.020, 2008.
- Schneider, D.J., Vallance, J.W., Wessels, R.L., Logan, M. and **Ramsey, M.S.**, **Use of thermal infrared imaging for monitoring renewed dome growth at Mount St. Helens, 2004**, in *A volcano rekindled: The renewed eruption of Mount St. Helens, 2004-2006*, Sherrod, D.R., Scott, W.E. and Stauffer, P.H., (eds.), U.S. Geological Survey Professional Paper 1750, 347-360, 2008.
- Byrnes, J.M., **Ramsey, M.S.**, King, P.L. and Lee, R.J.\*, **Thermal infrared reflectance and emission spectroscopy of quartzofeldspathic glasses**, *Geophys. Res. Lett.*, 34, L01306, doi:10.1029/2006GL027893, 2007.
- Carter, A.J.\*, **Ramsey, M.S.** and Belousov, A.B., **Detection of a new summit crater on Bezymianny Volcano lava dome: satellite and field-based thermal data**, *Bull. Volc.*, doi: 10.1007/s00445-007-0113-x., 2007.

- Wright, S.P.\* and Ramsey, M.S., **Thermal infrared data analyses of Meteor Crater, Arizona: Implications for Mars spaceborne data from the Thermal Emission Imaging System**, *J. Geophys. Res.*, 111(E8), doi:10.1029/2005JE002472, 2006.
- Vaughan, R.G., Hook, S.J., Ramsey, M.S., Realmuto, V.J. and Schneider, D.G., **Monitoring eruptive activity at Mount St. Helens with TIR image data**, *Geophys. Res. Lett.*, vol. 32, L19305, doi:10.1029/2005GL024112, (cover issue), 2005.
- Byrnes, J.M., Ramsey, M.S. and Crown, D.A., **Surface unit characterization of the Mauna Ulu flow field, Kilauea Volcano, Hawai'i using integrated field and remote sensing analyses**, *J. Volc. Geotherm. Res.*, 135, issue 1-2, 169-193, 2004.
- Hellman, M.J.\* and Ramsey, M.S., **Analysis of hot springs and associated deposits in Yellowstone National Park using ASTER and AVIRIS remote sensing**, *J. Volc. Geotherm. Res.*, 135, issue 1-2, 195-219, 2004.
- King, P.L., Ramsey, M.S., McMillan, P.F. and Swayze, G., **Laboratory Fourier transform infrared spectroscopy methods for geologic samples**, in *Infrared Spectroscopy in Geochemistry, Exploration, and Remote Sensing*, P. King, M. Ramsey, G. Swayze (eds.), Mineral. Assoc. of Canada, London, ON, 33, 57-91, 2004.
- Ramsey, M.S., **Quantitative geological surface processes extracted from infrared spectroscopy and remote sensing**, in *Infrared Spectroscopy in Geochemistry, Exploration, and Remote Sensing*, P. King, M. Ramsey, G. Swayze (eds.), Mineral. Assoc. of Canada, London, ON, 33, 197-213, 2004.
- Ramsey, M.S. and Dehn, J., **Spaceborne observations of the 2000 Bezymianny, Kamchatka eruption: The integration of high-resolution ASTER data into near real-time monitoring using AVHRR**, *J. Volc. Geotherm. Res.*, 135, issue 1-2, 127-146, 2004.
- Ramsey, M.S. and Flynn, L.P., **Strategies, insights, and the recent advances in volcanic monitoring and mapping with data from NASA's Earth Observing System**, *J. Volc. Geotherm. Res.*, 135, issue 1-2, 1-11, 2004.
- Ramsey, M.S., **Mapping the City Landscape From Space: The Advanced Spaceborne Thermal Emission and Reflectance Radiometer (ASTER) Urban Environmental Monitoring Program**, in *Earth Science in the City*, G. Heiken, R. Fakundiny, J. Sutter, (eds.), Am. Geophys. Union Press, Washington, DC, 337-361, 2003.
- Stefanov, W.L., Ramsey, M.S. and Christensen, P.R., **Identification of fugitive dust generation, transport, and deposition areas using remote sensing**, *Environ. and Eng. Geosci.*, 9:2, 151-165, 2003.
- Ramsey, M.S., **Ejecta distribution patterns at Meteor Crater, Arizona: On the applicability of lithologic end-member deconvolution for spaceborne thermal infrared data of Earth and Mars**, *J. Geophys. Res.*, 107(E8), doi:10.1029/2001JE001827, 2002.
- Ramsey, M.S. and Arrowsmith, J.R., **New images of fire scars may help to mitigate future natural hazards**, *Eos, Trans. Amer. Geophys. Union*, 82:36, pp. 393-398, 4 Sept. 2001.
- Stefanov, W.L., Ramsey, M.S. and Christensen, P.R., **Monitoring urban land cover change: An expert system approach to land cover classification of semiarid to arid urban centers**, *Rem. Sens. Environ.*, 77:2, 173-185, 2001.
- Ramsey, M.S. and Fink, J.H., **Estimating silicic lava vesicularity with thermal remote sensing: A new technique for volcanic mapping and monitoring**, *Bull. Volc.* 61, 32-39, 1999.
- Ramsey, M.S., Christensen, P.R., Lancaster, N. and Howard, D.A., **Identification of sand sources and transport pathways at the Kelso Dunes, California using thermal infrared remote sensing**, *Geol. Soc. Amer. Bull.*, 111, (cover issue), 646-662, 1999.
- Ramsey, M.S. and Christensen, P.R., **Mineral abundance determination: Quantitative deconvolution of thermal emission spectra**, *J. Geophys. Res.*, 103, 577-596, 1998.



**Ramsey, M.S.**, Ejecta distribution at Meteor Crater, Arizona, derived from Thermal Infrared Multispectral Scanner (TIMS) data, *The Compass, J. Earth Sci., Sigma Gamma Epsilon*, 71:2, 69-80, 1995.

Peer-Reviewed Articles/Book Chapters (In Preparation/Review/Revision):

Total: 10

- Beauchamp, N.\* and **Ramsey, M.S.**, Numerical modeling of the Daedalia Planum lava flows, Mars, *Icarus*, (in preparation).
- Harburger, A.M.\* and **Ramsey, M.S.**, Pahoehoe crust thickness, viscosity, and rheology derived from thermal infrared camera data, *Bull. Volc.*, (in preparation).
- Hungerford, J.D.G. and **Ramsey, M.S.**, The discrimination of subaerial, glaciated and subglacially emplaced lava flows with thermal infrared data, *Rem. Sens. Environ.*, (in preparation).
- Moersch, J.E. and **Ramsey, M.S.**, Chapter 12: Thermal infrared spectroscopy: field, airborne, and orbital measurements (in review), in: Bishop, J., Moersch, J., & Bell, J. (eds.), *Remote Compositional Analysis*, Cambridge Univ. Press, Cambridge, UK, 2018.
- Ramsey, M.S.** and Lee, R.J.\*, A new thermal camera system for compositional analysis of geologic surfaces, *IEEE Geosciences*, (in preparation).
- Ramsey, M.S.**, Wessels, R.L. and Schneider, D.G., Ascent rate and extruded volume of the 2004 Mount St. Helens lava body using thermal infrared data, *J. Geophys. Res.*, (in preparation).
- Reath, K.A.\*, Wright, R. and **Ramsey, M.S.**, Synergistic use of high and low spatial resolution satellite data to determine pyroclastic flow cooling rates, *J. Volc. Geotherm. Res.*, (submitted), 2018.
- Simurda, C. M. \*, **Ramsey, M.S.**, Crown, D.A., The unusual thermophysical and surface properties of the Daedalia Planum lava flows, Mars, *Icarus*, (in preparation).
- Thompson, J.O.\* and **Ramsey, M.S.**, MMT-Cam: A new miniature multispectral thermal infrared camera system for dynamic Earth processes, *IEEE Geosci.* (in preparation).
- Williams, D.B.\*, **Ramsey, M.S.**, Wickens, D.J. and Karimi, B., Identifying eruptive sources of drifting volcanic ash clouds using back-trajectory modelling and satellite data, *J. Volc. Geotherm. Res.*, (submitted), 2018.

Non Peer-Reviewed Articles/Conference Proceedings:

Total: 7

- Ramsey, M.S.**, Realmuto, V.J., Hulley, G.C. and Hook, S.J., **HyspIRI Thermal Infrared (TIR) Band Study Report**, Jet Propulsion Laboratory Publication 12-16, 49 pp., 2012.
- Realmuto, V., Hook, S., Foote, M., Csiszar, I., Dennison, P., Giglio, L., **Ramsey, M.**, Vaughan, R., Wooster, M. and Wright, R., **HyspIRI high-temperature saturation study**, Jet Propulsion Laboratory Publication 11-2, Pasadena, CA, 51 pp., 2011.
- Kiryukhin, A., **Ramsey, M.S.**, Droznin, V., Carter, A.J.\*, Rose, S.\*, Dvigalo, V. and Dubrovskaya, I., Heat discharge of the Mutnovsky Volcano, *Proc. 33<sup>rd</sup> Workshop on Geothermal Reservoir Engineering*, Stanford University, SGP-TR-185, 5 pp., 2008.
- Ramsey, M.S.**, Minster, J.B. and Sarabandi, K., Earth Science Objectives from the Lunar Surface, *NASA Advisory Council's Earth Science Subcommittee Report: Workshop on Science Associated with the Lunar Exploration Architecture*, 15 pp., 2007.
- Ramsey, M.S.**, **Highlights of 2004: Volcanoes**, *GeoTimes*, vol. 49, no. 7, p. 19-20, July, 2004.
- Ramsey, M.S.**, Stefanov, W.L. and Christensen, P.R., **Monitoring world-wide urban land cover changes using ASTER: Preliminary results from the Phoenix**, AZ LTER site, in *Proc. of the 13th Appl. Geol. Rem. Sens. Conf.*, Vancouver, BC, Canada, v. 2, pp. 237-244, 1999.
- Ramsey, M.S.**, **Object detection utilizing a linear retrieval algorithm for thermal infrared imagery**, in *Proc. of the Sec. Intl. Airborne Rem. Sens. Conf.*, San Francisco, CA, v. 2, pp. 559-569, 1996.

Extended Conference Abstracts:

Total: 61

- 2018 Ashley, K.T., McKeeby, B.E.\*, Harlov, D.E., Bodnar, R.J., Ramsey, M.S., High-resolution Raman spectroscopy constraints on apatite halogen composition: Implications for planetary volcanism and igneous processes, *Lunar Planet. Sci. Conf. #XLIV, abs. #1483*, 2018.  
**Ramsey, M.S.** and Christensen, P.R., Thermal Infrared Earth Imaging from the DSG, *Deep Space Gateway Science Workshop, abs. #3164*, 2018.  
Simurda, C.M.\*, **Ramsey, M.S.** and Crown, D.A., Modeling particle size distributions that cause the unique thermophysical variations in Daedalia Planum, Mars, *Lunar Planet. Sci. Conf. #XLIV, abs. #1792*, 2018.  
Simurda, C.M.\*, Scheidt, S.P.\*, **Ramsey, M.S.** and Crown, D.A., Interpreting subpixel surface roughness and block size distribution to improve thermal inertia interpretations of Mars, *Lunar Planet. Sci. Conf. #XLIV, abs. #2612*, 2018.
- 2017 Simurda, C.M.\*, **Ramsey, M.S.** and Crown, D.A., How mantled are the lava flows in Daedalia Planum?, *Lunar Planet. Sci. Conf. #XLVIII, abs. #2784*, 2017.
- 2016 Simurda, C.M.\*, **Ramsey, M.S.** and Crown, D.A., Surface characteristics of the Daedalia Planum lava flow field derived from thermophysical and geological mapping, *Lunar Planet. Sci. Conf. #XLVII, abs. #2594*, 2016.
- 2015 Crown, D.A., Berman, D.C., Chuang F.C., **Ramsey, M.S.**, and Tornabene, L.L., Geologic mapping investigations of the southern Tharsis region of Mars, *Ann. Planetary Geol. Mappers Mtg.*, 2015.  
Crown, D.A., Berman, D.C. and **Ramsey, M.S.**, Lava flow fields of southern Tharsis, Mars: Flow types, interactions, and ages, *Lunar Planet. Sci. Conf. #XLVI, abs. #1439*, 2015.  
Simurda, C.M.\*, **Ramsey, M.S.** and Crown, D.A., Thermophysical characteristics of lava flows south of Arsia Mons, *Lunar Planet. Sci. Conf. #XLVI, abs. #2332*, 2015.
- 2014 Simurda, C.M.\* and **Ramsey, M.S.**, Correcting topographic shadowing errors in apparent thermal inertia images, *Lunar Planet. Sci. Conf. #XLV, abs. #2400*, 2014.  
Tornabene, L.L., Osinski, G.R., Greenberger, R.N., Bishop, J.L., Cloutis, E.A., Marion, C.L., Mustard, J.F., Pontefract, A. and **Ramsey, M.S.**, The pre-, syn- and post-impact origin of hydrated phases: A case study based on the remote sensing and ground-truth at the Haughton impact structure, Nunavut, Canada, *Lunar Planet. Sci. Conf. #XLV, abs. #2710*, 2014.  
Williams, D.B.\* and **Ramsey, M.S.**, Analyzing proximal volcanic ash emissions using high spatial resolution thermal infrared imagery, in Bursik, M., Kuehn, S., Pouget S. and Wallace, K. (eds.), *Tephra 2014: Maximizing the potential of tephra for multidisciplinary science*, 100-101, 2014.
- 2013 Crown, D.A., Anderson, S.W., Finnegan, D.C., LeWinter, A.L. and **Ramsey, M.S.**, Topographic and thermal investigations of active pahoehoe lava flows: Implications for planetary volcanic processes from terrestrial analogue studies, *Lunar Planet. Sci. Conf. #XLIV, abs. #2184*, 2013.  
King, P.L., Lee, R.J.\* and **Ramsey, M.S.**, New methods to probe the full thermal history of volcanic rocks, *Geological Society of Australia, Specialist Group in Geochemistry, Mineralogy and Petrology (SGGMP) meeting*, 2012.  
Price, M.A.\*, **Ramsey, M.S.** and Crown, D.A., Thermophysical characteristics of mantled terrestrial volcanic surfaces: Infrared analogs to the Arsia Mons flows, *Lunar Planet. Sci. Conf. #XLIV, abs. #1640*, 2013.  
**Ramsey, M.S.** and Gillespie, A.R., The failure of the immutable emissivity assumption, *Lunar Planet. Sci. Conf. #XLIV, abs. #2101*, 2013.
- 2012 Crown, D.A., **Ramsey, M.S.** and Berman, D.C., Morphologic and chronologic studies of lava flow fields in the southern Tharsis region of Mars, *Lunar Planet. Sci. Conf. #XLIII, abs. #2138*, 2012.

- McCutcheon, W.A., King, P.L., Lee, R.J.\* and **Ramsey, M.S.**, Understanding the composition and thermal history of silicic glasses through thermal infrared spectroscopy, *Lunar Planet. Sci. Conf. #XLIII, abs. #2543*, 2012.
- Ramsey, M.S.**, Crown, D.A. and Price, M.A.\*, Decoupling lava flow composition and emplacement processes from eolian mantling deposits using thermal infrared data, *Lunar Planet. Sci. Conf. #XLIII, abs. #2013*, 2012.
- 2011 Crown, D.A., **Ramsey, M.S.** and Berman, D.C., Lava flow fields of southern Tharsis, Mars: Mapping, morphologic, and chronologic studies, *Lunar Planet. Sci. Conf. #XLII, abs. #2352*, 2011.
- Hughes, C.G.\* and **Ramsey, M.S.**, Super-resolution of Martian chloride sites, *Lunar Planet. Sci. Conf. #XLII, abs. #2248*, 2011.
- King, P.L., Lee, R.J.\*, **Ramsey, M.S.**, McCutcheon, W.A., Dufresne, C.M. and Shearer, C.K., Using thermal infrared spectroscopy of glasses to unravel composition and thermal history – A new thermometer for lunar glass beads? , *Lunar Planet. Sci. Conf. #XLII, abs. #2069*, 2011.
- Ramsey, M.**, Wessels, R., Dehn, J., Duda, K., Carter, A.\* and Rose, S.\*, The volcanic eruptions of Kamchatka: One decade of NASA satellite observations, *7<sup>th</sup> Biennial Workshop on Japan-Kamchatka-Alaska Subduction Processes (JKASP)*, p. 40-41, 2011.
- 2010 Crown, D.A., **Ramsey, M.S.** and Berman, D.C., Mapping Arsia Mons lava flow fields: Insights into flow emplacement processes and flow field development, *Lunar Planet. Sci. Conf. #XLI, abs. #2225*, 2010.
- Hughes, C.G.\* and **Ramsey, M.S.**, Super-resolution of Martian chloride sites and the associated mineral assemblages, *Lunar Planet. Sci. Conf. #XLI, abs. #2284*, 2010.
- Ramsey, M.S.** and Crown, D.A., Thermophysical and spectral variability of Arsia Mons lava flows, *Lunar Planet. Sci. Conf. #XLI, abs. #1111*, 2010.
- Scheidt, S.\*, Lancaster, N. and **Ramsey, M.S.**, Sand composition of the Gran Desierto: A terrestrial analogue for thermal infrared imaging and spectroscopy techniques, *Sec. Int'l Planetary Dunes Workshop, abs. #2010*, 2010.
- 2009 **Ramsey, M.S.**, Carter, A.\*, Wessels, R., Dehn, J., Duda, K. and Muder, M.\*, The ASTER Urgent Request Program: A collaborative multi-agency, multi-year effort to monitor the North Pacific volcanoes from space, *6<sup>th</sup> Biennial Workshop on Japan-Kamchatka-Alaska Subduction Processes (JKASP-2009)*, *Sci. Abst. & Progs.*, p. 57-59, 2009.
- Crown, D.A., Berman, D.C., Rivas, R. and **Ramsey, M.S.**, Arsia Mons lava flows: Insights into flow field emplacement and stratigraphy from CTX and HiRISE images, *Lunar Planet. Sci. Conf. #XL, abs. #2252*, 2009.
- Hughes, C.G.\*, **Ramsey, M.S.** and Bandfield, J.L., Detection of Small-Scale Mineral Deposits in Super-Resolved THEMIS TIR Data, *Lunar Planet. Sci. Conf. #XL, abs. #2359*, 2009.
- 2008 Anderson, S.W., Smrekar, S.E., Stofan, E.R., **Ramsey, M.S.** and Byrnes, J.M., Similarities in emplacement styles between crusted lava flows and igneous intrusions: Implications for planetary lava flow formation, *Lunar Planet. Sci. Conf. #XXXIX, abs. #1782*, 2008.
- Byrnes, J.M., **Ramsey, M.S.**, Anderson, S.W., Prade, K.C. and Finnegan, D.C., Thermal remote sensing analysis of Martian-analog volcanic surfaces, Amboy Crater, Mojave Desert, California, *Lunar Planet. Sci. Conf. #XXXIX, abs. #1988*, 2008.
- Hughes, C.G.\*, and **Ramsey, M.S.**, Initial results of super-resolving THEMIS data, *Lunar Planet. Sci. Conf. #XXXIX, abs. #2530*, 2008.
- Scheidt, S.\*, **Ramsey, M.S.** and Lancaster, N., Thermal remote sensing of sand transport systems, in *Planetary Dunes Workshop: A Record of Climate Change*, *Lun. Planetary Instit. No. 1403*, 2008.

- Wessels, R., Schneider, D., Dehn, J. and **Ramsey, M.**, Integration of ASTER and airborne thermal infrared data in response to the 2006 eruption of Augustine Volcano, Alaska, USA, *ASTER Science Workshop*, p. 15-16, 2008.
- 2007 Byrnes, J.M., Finnegan, D.C., **Ramsey, M.S.** and Anderson, S.W., Multispectral analyses of Martian-analog surfaces, Amboy Crater, Mojave Desert, California, *Lunar Planet. Sci. Conf. #XXXVIII, abs. #1908*, 2007.
- Hughes, C.G.\*, **Ramsey, M.S.** and Tonooka, H., Super-resolving THEMIS data for improved temperature, composition, and spatial resolution, *Lunar Planet. Sci. Conf. #XXXVIII, abs. #1810*, 2007.
- Peet, V.M.\*, **Ramsey, M.S.** and Crown, D.A., Remote sensing analyses of small terrestrial volcanic and impact craters: A Mars analog for formation, morphology, and erosional processes, *Lunar Planet. Sci. Conf. #XXXVIII, abs. #2330*, 2007.
- Ramsey, M.S.**, Duda, K., Dehn, J., Wessels, R., Skoog, R. and Rose, S.\*, Application of the ASTER rapid response protocol for eruption detection and volcano monitoring, *ASTER Science Workshop*, p. 3-4, 2007.
- 2006 Byrnes, J.M., Finnegan, D.C., Anderson, S.W. and **Ramsey, M.S.**, Analyses of Amboy Crater, Mojave Desert, California, as an Analog for Small Martian Volcanoes, *Lunar Planet. Sci. Conf. #XXXVII, abs. #1205*, 2006.
- Peet, V.M.\*, **Ramsey, M.S.** and Crown, D.A., Terrestrial volcanic and impact analogs to Martian small craters: Utilizing remote sensing and field-based datasets to analyze formational and sediment transport processes, *Lunar Planet. Sci. Conf. #XXXVII, abs. #2323*, 2006.
- 2005 Byrnes, J.M., King, P.L., **Ramsey, M.S.** and Lee, R.J., Synthesis and analysis of silicate glasses: Applications to remote sensing of volcanic surface units on Earth and Mars, *Lunar Planet. Sci. Conf. #XXXVI, abs. #2089*, 2005.
- Peet, V.M.\*, **Ramsey, M.S.** and Crown, D.A., Comparison of terrestrial morphology, ejecta, and sediment transport of small craters: Volcanic and impact analogs to Mars, *Lunar Planet. Sci. Conf. #XXXVI, abs. #2080*, 2005.
- 2004 **Ramsey, M.S.** and Crown, D.A., Quantitative analyses of terrestrial crater deposits: Constraining formation and sediment transport processes on Mars, *Lunar Planet. Sci. Conf. #XXXV, abs. #2031*, 2004.
- 2003 Wright, S.P.\* and **Ramsey, M.S.**, Thermal infrared remote sensing of terrestrial impact craters as analogs for Mars, *Mars Crater Morphology Consortium Workshop*, abs. #0611, 2003.
- Wright, S.P.\* and **Ramsey, M.S.**, Spaceborne thermal infrared data analysis of Meteor Crater, Arizona: Analog for THEMIS data of a small impact crater in Syrtis Major, *Lunar Planet. Sci. Conf. #XXXIV*, p. 1495, 2003.
- 2002 **Ramsey, M.S.**, Using terrestrial multispectral images as a proxy for constraining new thermal infrared data of Mars, in *Proc. of the Mars Infrared Spectroscopy Workshop*, abs. 2016, *Lun. Planetary Instit.*, 2002.
- Ramsey, M.S.** and Dehn, J., The 2000 eruption of Bezymianny Volcano captured with ASTER: A proposal to integrate high-resolution remote sensing data into real-time eruption monitoring at AVO, in *Proc. of the 3rd Ann. Subduction Processes in the Kurile-Kamchatka-Aleutian Arcs*, p. 44-45, 2002.
- Wright, S.P.\* and **Ramsey, M.S.**, End member analyses of spaceborne thermal infrared data of Meteor Crater, AZ and application to future Mars data sets, *Solar System Rem. Sens. Symp., LPI Contrib. No. 1129*, p. 91-92, 2002.



- Zorn, N.V.\* and **Ramsey, M.S.**, An automated spectral deconvolution algorithm: Application to thermal infrared studies of Earth and Mars, *Solar System Rem. Sens. Symp., LPI Contrib. No. 1129*, p. 93-94, 2002.
- 2001 Kahle, A.B., Abrams, M.J., Hook, S.J., Pieri, D.C., **Ramsey, M.S.**, Rowan, L.C., Schmutge, T. and Wessels, R., Current activity of U.S. ASTER science team, *6th Int'l Symp. for the Expanding Use of ASTER Data*, Tokyo, Japan, 2001.
- Stefanov, W.L., Christensen, P.R. and **Ramsey, M.S.**, Remote sensing of urban ecology at regional and global scales: Results from the Central Arizona-Phoenix LTER site and ASTER urban environmental monitoring program, *Regensberger Geographische Schriften 35, (plus suppl. CD-ROM)*, 97-98, 2001.
- 2000 Byrnes, J.M., Crown, D.A. and **Ramsey, M.S.**, Thermal remote sensing characteristics of basaltic lava flow surface units: Implications for flow field evolution, *Lunar Planet. Sci. Conf. XXXI, Abs. 1867*, 2000.
- Stefanov, W.L., **Ramsey, M.S.** and Christensen, P.R., Monitoring urban land cover change: An expert system approach to land cover classification of the Phoenix metropolitan area, in *Abs. of the Ecol. Soc. Am. Ann. Mtg.*, pp. 387-388, 2000.
- 1997 **Ramsey, M.S.** and Christensen, P.R., Monitoring potential desertification via airborne TIR data: Sediment transport in the Mojave Desert, California, *First JPL Workshop on Rem. Sens. of Land Surface Emissivity*, Pasadena, CA, 4pp., 1997.
- 1995 Edgett, K.S., **Ramsey, M.S.** and Christensen, P.R., Aeolian erosion, transport, and deposition of volcanoclastic sands among the Shifting Sand Dunes, Christmas Lake Valley, Oregon: TIMS image analysis, in *Sum. of the Fifth Ann. Airborne Geosci. Workshop, vol. 2, TIMS Workshop, edited by V.J. Realmuto, JPL Publ. 95-1*, 13-16, 1995.
- Ramsey, M.S.**, "A conflict of water and fire": Remote sensing imagery of the Uinkaret Volcanic Field, Grand Canyon, Arizona, in Realmuto, V.J. (ed.), *Sum. of the Fifth Ann. Airborne Geosci. Workshop, vol. 2, TIMS Workshop, JPL Publ. 95-1*, pp. 19-23, 1995.
- 1994 Edgett, K.S., Christensen, P.R. and **Ramsey, M.S.**, Monitoring aeolian dune dynamics using multispectral thermal infrared observations: Preparing for the Earth Observing System's Advanced Spaceborne Thermal Emission and Reflectance Radiometer, in *Desert Res. Inst. Occasional Paper, 2*, 29-31, 1994.
- Ramsey, M.S.**, Howard, D.A., Christensen, P.R. and Lancaster, N., Mineralogic variability of the Kelso Dunes, Mojave Desert, California derived from Thermal Infrared Multispectral Scanner (TIMS) data, in *Sum. of the Fourth Ann. Airborne Geosci. Workshop, vol. 2, TIMS Workshop, edited by V.J. Realmuto, JPL Publ. 93-26*, 9-12, 1993.
- 1992 **Ramsey, M.S.** and Christensen, P.R., Ejecta patterns of Meteor Crater, Arizona derived from the linear un-mixing of TIMS data and laboratory thermal emission spectra, in *Sum. of the Third Ann. Airborne Geosci. Workshop, vol. 2, TIMS Workshop, edited by E.A. Abbott, JPL Publ. 92-14*, 34-36, 1992.
- Ramsey, M.S.** and Christensen, P.R., The linear "un-mixing" of laboratory infrared spectra: Implications for the thermal emission spectrometer (TES) experiment, Mars Observer, *Lunar Planet. Sci. XXIII*, 1127-1128, 1992.

Conference Abstracts:

Total: 173

- 2018 Thompson, J.O.\* and **Ramsey, M.S.**, Thermal infrared measurements of active lava surfaces: Implications for improved flow modeling and future instrument development, *Asia Oceania Geosci. Soc. Annual Mtg. (submitted)*, 2018.

- 2017 Beauchamp, N.D.\* and **Ramsey, M.S.**, Topographic influence on thermo-rheologic modeling of the lava flows of Daedalia Planum, Mars, *AGU Fall Mtg.*, 2017.
- Krippner, J.B.\*, Belousov A.B., Belousova M.G. and **Ramsey, M.S.**, Correlating dome collapse events with block and ash flow deposits at Shiveluch volcano, Kamchatka, *2017 IAVCEI General Assem.*, Portland, OR, 2017.
- Lee, R.J.\*, Thompson, J.O.\*, **Ramsey, M.S.** and King, P.L., Does the Emissivity of Basaltic Lava Surfaces Change with Temperature and Why Do We Care?, *2017 IAVCEI General Assem.*, Portland, OR, 2017.
- Ramsey, M.S.** and Watson, I.M., A new orbital concept for measuring passive volcanic degassing and small plumes, *2017 IAVCEI General Assem.*, Portland, OR, 2017.
- Ramsey, M.S.**, Chevrel, M.O. and Harris, A.J.L., Modeling the 2012-2013 lava flows of Tolbachik, Russia using thermal infrared satellite data and PyFLOWGO, *AGU Fall Mtg.*, 2017.
- Simurda, C.M.\*, **Ramsey, M.S.**, and Crown, D.A., Thermophysical modeling of recent lava flows in Daedalia Planum, *AGU Fall Mtg.*, 2017.
- Simurda, C.M.\*, **Ramsey, M.S.**, Scheidt, S.P. and Crown, D.A., Surface roughness and block-size distribution on silicic lava flows, *2017 IAVCEI General Assem.*, Portland, OR, 2017.
- Thompson, J.O.\* and **Ramsey, M.S.**, Identifying silicic surface textures and flow relationships using thermal infrared image data, *2017 IAVCEI General Assem.*, Portland, OR, 2017.
- Thompson, J.O.\* and **Ramsey, M.S.**, Thermal infrared data of active lava surfaces using a newly-developed camera system, *AGU Fall Mtg.*, 2017.
- Williams, D.B.\* and **Ramsey, M.S.**, Retrieval of volcanic ash composition and particle size using high spatial resolution satellite data, *AGU Fall Mtg.*, 2017.
- 2016 Lee, R.J.\* and **Ramsey, M.S.**, What is the emissivity of active basaltic lava flows?, *AGU Fall Mtg.*, 2016.
- Palm, A.B., Pure, L., King, P.L., Le Losq, C., Colman, A., Sinton, J.M., **Ramsey, M.S.** and Lee, R.J.\*, Results for a new cooling rate probe applied to MORB from the Galapagos seafloor, *V.M. Goldschmidt Conference*, 2017.
- Ramsey, M.S.** and Thompson, J.O., The HypsIRI volcano airborne campaign: Development of a new infrared camera for data acquisition and validation, *2016 HypsIRI Science and Applications Workshop*, Pasadena, CA, 2016.
- Ramsey, M.S.** and Harris, A.J.L., Modelling the thermal and infrared spectral properties of active vents: Comparing basaltic lava flows of Tolbachik, Russia to Arsia Mons, Mars, *AGU Fall Mtg.*, 2016.
- Realmuto, V., Deering, C. Pieri, D., **Ramsey, M.** and Vaughan, G. HypsIRI preparatory airborne science: Investigations of Volcanic Phenomena, *2016 HypsIRI Science Symposium*, Greenbelt, MD, 2016.
- Williams, D.B.\* and **Ramsey, M.S.**, AVAL - The ASTER volcanic ash library, *AGU Fall Mtg.*, 2016.
- 2015 <sup>8</sup>Krippner, J.B.\* and **Ramsey, M.S.**, Recent dome collapse driven block and ash flows on Shiveluch volcano, Kamchatka: Morphological analysis using satellite and field data, *abs. V23A-3066*, presented at *AGU Fall Mtg.*, 2015.
- Pieri, D., Diaz, J., Fladeland, M., Bland, G., Alan, A., Alegria, O., Buongiorno, M.F., Christensen, L., Corrales, E., Linick, J., Mougini-Mark, P., **Ramsey, M.**, Realmuto, V., Schwandner, F., Volcanic sulfur dioxide and carbon dioxide measurements using small unmanned aerial systems, *abs. NH43C-1903*, presented at *AGU Fall Mtg.*, 2015.
- Ramsey, M.S.**, *SOLICITED*: Synergistic use of thermal infrared field and satellite data: Eruption detection, monitoring and science, *Geophys. Res. Abs.*, vol. 17, *abs. EGU2015-9121*, *EGU General Assembly*, 2015.

- Ramsey, M.S.**, *INVITED*: Deciphering soil moisture and surface composition of the world's drylands using thermal infrared airborne and spaceborne data, *GSA Annual Mtg., session T179, abs. 22-10*, 2015.
- Ramsey, M.S.**, Quantifying active volcanic processes and mitigating their hazards with HypsIRI data, *2015 HypsIRI Science and Applications Workshop, Pasadena, CA, 2015*.
- Ramsey, M.S.** and Harris, A.J.L., *INVITED*: The thermospectral infrared properties of active basaltic flows: Constraining petrology, lava cooling and flow propagation models, *26<sup>th</sup> IUGG General Assembly, Abst. & Prog., abs. #3519*, 2015.
- Ramsey, M.S.**, Harris, A.J.L. and Crown, D.A., Constraining the rheologic properties of channelized basaltic flows on Earth and Mars, *abs. P31H-04, presented at AGU Fall Mtg.*, 2015.
- Reath, K.A.\*, Watson, M., and **Ramsey, M.S.**, Quantitative modeling of volcanic SO<sub>2</sub>: Integrated monitoring of precursory activity, *abs. V23F-05, presented at AGU Fall Mtg.*, 2015.
- Williams, D.B.\* and **Ramsey, M.S.**, Ground-based analysis of volcanic ash plumes using a new multispectral thermal infrared camera approach, *abs. PA43C-2196, presented at AGU Fall Mtg.*, 2015.
- 2014 **Ramsey, M.S.**, Synergistic use of satellite volcano detection and science: A fifteen year perspective of ASTER on Terra, *abs. GC51E-0479, presented at AGU Fall Mtg.*, 2014.
- Ramsey, M.S.** and Scheidt, S.\*, Can HypsIRI-like thermophysical data be used for calibration/validation of SMAP surface soil moisture measurements?, *2014 HypsIRI Science and Applications Workshop, Pasadena, CA, 2014*.
- Ramsey, M.S.** and Scheidt, S.\*, Sustainable land imaging requirements to monitor of surface soil moisture with HypsIRI-like data, *2014 HypsIRI Science Symposium, Greenbelt, MD, 2014*.
- Ramsey, M.S.**, Crown, D.A. and Harris, A.J.L., *INVITED*: What can thermal infrared remote sensing of terrestrial volcanoes tell us about processes past and present on Mars?, *abs. 25-1, Session T233, presented at GSA Annual Mtg.*, 2014.
- Reath, K.A.\*, Wright, R.W. and **Ramsey, M.S.**, ASTER/AVHRR Data Hybridization to determine Pyroclastic Flow cooling curves, *abs. V41B-4805, presented at AGU Fall Mtg.*, 2014.
- 2013 Krippner, J.B.\* and **Ramsey, M.S.**, Pyroclastic flow and lahar hazards in populous, developing regions: Integrated TIR and SAR data analysis, *IAVCEI General Assem. Prog, abs. 4W\_2E-P19, p. 458*, 2013.
- Fontanella, N.R.\*, **Ramsey, M.S.** and Lee, R.J.\*, Extracting accurate temperatures of molten basalts from non-contact thermal infrared radiance data, *abs. V51D-2701, presented at the AGU Fall Mtg.*, 2013.
- Ramsey, M.S.**, Synergistic use of satellite hot-spot detection and science: A decadal perspective using ASTER, *Workshop on Satellite-Data-Driven Detection, Tracking and Modeling of Volcanic Hot Spots, Clermont-Ferrand, France (28-30 May), p. 31*, 2013.
- Ramsey, M.S.** and Crown, D.A., Thermophysical modeling of mantled lava flows on Earth and Mars, *abs. P52A-08, presented at AGU Fall Mtg.*, 2013.
- Ramsey, M.S.** and Hughes, C.G.\*, A super-resolution application for improved multispectral thermal infrared image data, *Imaging in Geospatial Applications Mtg., Minneapolis, MN (23-26 September), <http://www.ima.umn.edu/2013-2014/SW9.23-26.13/>*, 2013.
- Ramsey, M.S.**, Lee, R.J.\*, Anderson, S.W. and Crown, D.A., Multiscale parametric imaging of basaltic lava flows, *IAVCEI General Assem. Prog., abs. 0P1\_3H-O1, p. 987*, 2013.
- Ramsey, M.S.**, Reath, K.A.\* and Williams, D.B.\*, Threshold considerations for future volcanic hotspot and ash detection using HypsIRI, *2013 HypsIRI Science Workshop, Pasadena, CA, 2013*.

- Ramsey, M.S.**, Tratt, D.M., Hall, J.L. and Reath, K.A.\*, Initial science results of the NASA MAGI airborne instrument: Implications for environmental studies using HypsIRI data, *2013 HypsIRI Science Symposium*, Greenbelt, MD, 2013.
- Reath, K.A.\*, Dehn, J. and **Ramsey, M.S.**, Combining high temporal and high spatial resolution thermal infrared datasets to detect volcanic precursors, *abs. V43B-2891, presented at the AGU Fall Mtg.*, 2013.
- Williams, D.B.\*, **Ramsey, M.S.** and Karimi, B., Identifying the volcanic source of disconnected ash clouds using the HYSPLIT dispersion model, *abs. NH23C-1538, presented at the AGU Fall Mtg.*, 2013.
- 2012 Crown, D.A., Anderson, S.W., Finnegan, D.C., LeWinter, A.L. and **Ramsey, M.S.**, Topographic and thermal investigations of active pahoehoe lava flows: Implications for planetary volcanic processes from terrestrial analogue studies, *GSA Annual Mtg.*, *abs. 19-19-7*, 2012.
- Crown, D.A., Anderson, S.W., Finnegan, D.C., LeWinter, A.L. and **Ramsey, M.S.**, Topographic and thermal investigations of active pahoehoe lava flows using coupled LiDAR/FLIR datasets, *abs. V21B-2779, presented at the AGU Fall Mtg.*, 2012.
- Denny, A.C., Chiasera, B., Rooney, T.O., Mohr, P., Zimbelman, J.R., **Ramsey, M.S.**, Grosfils, E.B., and Gezahegn, Y., The riftward migration of focused magmatism in Central Ethiopia: Geochemical evidence of magmatic processes within the Galema Ridge, *abs. V43D-2892, presented at the AGU Fall Mtg.*, 2012.
- Lee, R.J.\*, **Ramsey, M.S.** and King, P.L., Laboratory TIR emission spectroscopy of silicic melts, *22nd V.M. Goldschmidt Conference, Montreal, Quebec, CA, p. 248, abs. 03G2*, 2012.
- Lee, R.J.\*, **Ramsey, M.S.** and King, P.L., Thermal emission spectroscopy of rhyolitic and basaltic melts: a new laboratory approach, *abs. V21B-2767, presented at the AGU Fall Mtg.*, 2012.
- Rooney, T.O., Gezahegn, Y., Zimbelman, J.R., Grosfils, E.B., **Ramsey, M.S.**, and Movsesian, E., Pliocene cinder cone chains adjacent to the main Ethiopian Rift: Precursors to rift-based Quaternary Zones of focused magmatic intrusion?, *abs. V53C-2856, presented at the AGU Fall Mtg.*, 2012.
- Ramsey, M.S.**, *INVITED*: Dynamics of the lava dome at Shiveluch volcano, Kamchatka assessed using near-field remote sensing, *abs. V34A-04, presented at the AGU Fall Mtg.*, 2012.
- Ramsey, M.S.**, Results of increased spatial and spectral observations of volcanic activity: Implications for HypsIRI TIR data, *2012 HypsIRI Science Symposium*, Greenbelt, MD, 2012.
- Ramsey, M.S.**, Implications of temporal and spectral resolution changes for HypsIRI TIR data of volcanoes, *2012 HypsIRI Science Workshop*, Washington, DC, 2012.
- Ramsey, M.S.**, and Gillespie, A., *INVITED*: Is emissivity immutable?, *abs. V21B-2765, presented at the AGU Fall Mtg.*, 2012.
- Ramsey, M.S.**, Lee, R.J.\* and Harburger, A.M.\*, Thermal emission from molten silicates: Implications for lava flow emplacement and hazards, *Chapman Conference: Hawaiian Volcanoes, Waikoloa, HI*, 2012.
- Wessels, R., Vaughan, R.G., Patrick, M.R., **Ramsey, M.S.**, Remote monitoring of persistent thermal features at volcanoes: a survey of Alaskan volcanoes using satellite and airborne thermal infrared, *abs. V21B-2766, presented at the AGU Fall Mtg.*, 2012.
- 2011 Crown, D.A., **Ramsey, M.S.**, and Berman, D.C., Flow field evolution in southern Tharsis, Mars: Constraints from mapping, morphology, and impact crater distributions, *abs. V31A-2514, presented at the AGU Fall Mtg.*, 2011.
- Ellis, M., Graettinger, A., Reath, A.\*, Skilling, I., **Ramsey, M.** and Hughes, C.\*, Multiple mapping techniques of glaciovolcanic regions: Remote sensing and field mapping of Askja (Dyngjufjöll), Iceland, *abs. NH53A-1718, presented at the AGU Fall Mtg.*, 2011.

- Hall, J.L., Gutierrez, D., **Ramsey, M.S.**, Tratt, D.M., Warren, D.W. and Young, S.J., Mineral and Gas Identification Using a High-Performance Thermal Infrared Imaging Spectrometer, *NASA Earth Science and Technology Forum, Pasadena, CA*, 2011.
- Harburger, A.M.\* and **Ramsey, M.S.**, Measuring basaltic flow viscosity from crustal thickness, *GSA Annual Mtg., abs. 250-8*, 2011.
- Hughes, C.G.\* and **Ramsey, M.S.**, Super-resolution of playa lake deposits over time, *GSA Northeastern/North-Central Regional Mtg., GSA Abst. with Prog., vol. 43, no. 1, abs. 185881*, 2011.
- Lee, R.J.\* and **Ramsey, M.S.**, Thermal infrared (TIR) emission spectroscopy of silicic melts: Application to remote sensing of active volcanoes, *GSA Northeastern/North-Central Regional Mtg., GSA Abst. with Prog., vol. 43, no. 1, abs. 184888*, 2011.
- Lee, R.J.\* and **Ramsey, M.S.**, Development of a micro-furnace for emission spectroscopy of silicate glasses, *abs. V11C-2526, presented at the AGU Fall Mtg.*, 2011.
- Ramsey, M.**, *INVITED*: Using infrared spectroscopy and satellite data to accurately monitor remote volcanoes and map their eruptive products, *AGU abs. V11C-2525, presented at the AGU Fall Mtg.*, 2011.
- Ramsey, M.S.**, How has remote sensing of dynamic activity evolved over the past decade?, *GSA Northeastern/North-Central Regional Mtg., GSA Abst. with Prog., vol. 43, no. 1, abs. 184904*, 2011.
- Ramsey, M.** and Crown, D.A., *INVITED*: Mantled lava flow surfaces on Earth: Thermophysical analogs for Martian volcanism?, *AGU abs. P42C-06, presented at the AGU Fall Mtg.*, 2011.
- Ramsey, M.S.** and Harris, A.J., How will remote sensing of volcanic activity evolve with HypsIRI?, *2011 HypsIRI Science Symposium, NASA-GSFC, Greenbelt, MD, 17-18 May*, 2011.
- Ramsey, M.S.** and Lee, R.J.\*, Thermal emissivity measurements of molten silicates: implications for lava flow emplacement and hazards, *IUGG XXV General Assembly Abst. & Prog., abs. #4184*, 2011.
- Ramsey, M.**, Hughes, C.\* and Harris, A., How will remote sensing of volcanic activity continue to evolve with HypsIRI data? *4<sup>th</sup> HypsIRI Science Workshop, Washington, DC*, 2011.
- Reath, K.A.\* and **Ramsey, M.S.**, Hyperspectral thermal infrared analysis of the Salton Sea, CA geothermal field, *AGU abs. V11C-2524, presented at the AGU Fall Mtg.*, 2011.
- Reath, K.A.\*, **Ramsey, M.S.** and Tratt, D.M., Application of high-resolution thermal infrared sensors for geothermal exploration at the Salton Sea, California, *GSA Northeastern/North-Central Regional Mtg., GSA Abst. with Prog., vol. 43, no. 1, abs. 185321*, 2011.
- Rose, S.\*, **Ramsey, M.S.** and Watson, I.M., Analysis of basaltic lava flows at Cerro Negro volcano, Nicaragua using spaceborne TIR data, *GSA Northeastern/North-Central Regional Mtg., GSA Abst. with Prog., vol. 43, no. 1, abs. 185249*, 2011.
- Scheidt, S.P.\*, Hughes, C.\*, Craddock, R., **Ramsey, M.S.**, Zimelman, J., A simulated HypsIRI dataset using combined ASTER and AVIRIS data of the Ka'u Desert dunes for terrestrial mapping and planetary application, *4<sup>th</sup> HypsIRI Science Workshop, Washington, DC*, 2011.
- 2010 Carter, A.J.\* and **Ramsey, M.S.**, Rebuilding Kamchatka volcanoes: A decade of ground, air and spaceborne observations of lava dome growth, *AGU abs. V33D-03, presented at the AGU Fall Mtg.*, 2010.
- Crown, D.A., **Ramsey, M.S.** and Hon, K., Emplacement of pahoehoe toe networks: Observations of May, 2010 tube-fed flows at Kilauea volcano, Hawaii, *AGU abs. V21C-2349, presented at the AGU Fall Mtg.*, 2010.
- Hall, J.L., Gutierrez, D.J., Hackwell, J.A., Kasper, B.P., Keim, E.R., Scherer, G.J., Tratt, D.M., Warren, D.W., Young, S.J., **Ramsey, M.S.** and Reath, K.A.\*, Advanced thermal IR spectral imager development for Earth observation applications, *3<sup>rd</sup> HypsIRI Science Workshop, Pasadena, CA*, 2010.

- Mohammad, R.\*, **Ramsey, M.S.** and Scheidt, S.P.\*, Using thermal infrared (TIR) data to characterize dust sources, dust fall and the linkage to climate in the Middle East, *AGU abs. A13E-0266, presented at the AGU Fall Mtg.*, 2010.
- Ramsey, M.S.** and Harris, A.J., Volcanology 2020: Will remote sensing of volcanic activity continue to evolve in the next decade?, *AGU abs. V44C-01, presented at the AGU Fall Mtg.*, 2010.
- Ramsey, M.S.**, Hughes, C.G.\* and Scheidt, S.P.\*, A radiometrically-accurate HypsIRI dataset created for arid land surfaces using combined ASTER and AVIRIS data, *3<sup>rd</sup> HypsIRI Science Workshop, Pasadena, CA*, 2010.
- Reath, K.A.\*, **Ramsey, M.S.** and Tratt, D.M., Application of high-resolution thermal infrared sensors for geothermal exploration at the Salton Sea, California, *AGU abs. V23C-03, presented at the AGU Fall Mtg.*, 2010.
- Scheidt, S.P.\*, Lancaster, N. and **Ramsey, M.S.**, Spatial patterns of sand composition in the Gran Desierto, MX determined from thermal infrared spectroscopy and ASTER remote sensing data, *Geol. Soc. Am. abs. with Progs, abs. #170-6*, 2010.
- Scheidt, S.P.\*, **Ramsey, M.S.**, Mohammad, R.\*, Mercurio, E. and Lancaster, N., Performance of the proposed HypsIRI TIR bands for accurate compositional identification of eolian dust, ash and sand, *3<sup>rd</sup> HypsIRI Science Workshop, Pasadena, CA*, 2010.
- 2009 <sup>7</sup>Lee, R.J.\* and **Ramsey, M.S.**, A high-temperature micro-furnace for in-situ spectral analysis of quartzofeldspathic melts, *Eos Trans. AGU, 90(52), Fall Mtg. Suppl., abs. V13B-2030*, 2009.
- Ramsey, M.S.**, *INVITED*: What more have we learned from thermal infrared remote sensing of active volcanoes other than they are hot?, *Eos Trans. AGU, 90(52), Fall Mtg. Suppl., abs. V24B-01*, 2009.
- Ramsey, M.S.** and Rose, S.\*, The complex effects of subpixel compositional, thermal and textural heterogeneities on spaceborne TIR data, *2<sup>nd</sup> HypsIRI Science Workshop, Pasadena, CA*, 2009.
- Ramsey, M.S.** and Scheidt, S.\*, Deriving soil moisture and sediment mobility using future HypsIRI-derived thermal inertia, *2<sup>nd</sup> HypsIRI Science Workshop, Pasadena, CA*, 2009.
- Ramsey, M.S.**, Dehn, J., Duda, K., Hughes, C.\*, Lee, R.\*, Rose, S.\*, Scheidt, S.\* and Wessels, R., Ten years of ASTER thermal infrared data from Terra: Discoveries, lessons learned, and insights into future missions, *Eos Trans. AGU, 90(52), Fall Mtg. Suppl., abs. U32A-06*, 2009.
- Rose, S.\*, Watson, I.M. and **Ramsey, M.S.**, Retrieval of multispectral infrared emissivity from thermally-mixed volcanic surfaces for more accurate compositional mapping, *Eos Trans. AGU, 90(52), Fall Mtg. Suppl., abs. V21B-1987*, 2009.
- Thomas, H., Watson, I.M. and **Ramsey, M.S.**, The ASTER Urgent Request Protocol – A semi-automated, high resolution SO<sub>2</sub> retrieval scheme, *European Geophys. Union Geophys. Res. abs., vol. 11, EGU2009-9674-1*, 2009.
- 2008 Anderson, S., Stofan, E., Smrekar, S., Finnegan, D., Byrnes, J., **Ramsey, M.** and Nicoll, K., The growth of active flow-lobe tumuli – field observations and LIDAR data, *IAVCEI, General Assem. Prog., P11, p. 37*, 2008.
- Byrnes, J., Finnegan, D., Prade, K., **Ramsey, M.** and Anderson, S., Remote sensing data fusion for interpretation of lava flow field emplacement mechanisms and surface modification, *IAVCEI, General Assem. Prog., P33, p. 52*, 2008.
- Carter, A.J.\*, and **Ramsey, M.S.**, Thermal infrared monitoring of activity at Bezymianny Volcano, Kamchatka, Russia: 14 months of data, *IAVCEI, General Assem. Prog., P53, p. 64*, 2008.
- Carter, A.J.\*, **Ramsey, M.S.**, Girina, O., Belousov, A., Durant, A., Skilling, I. and Wolfe, A., Spaceborne and field-based observations of Bezymianny Volcano, Kamchatka from 2000-2008, *Eos Trans. AGU, 89(53), Fall Mtg. Suppl., abs. V41E-05*, 2008.



- Duda, K.A., Wessels, R., **Ramsey, M.** and Dehn, J., Monitoring volcanic threats using ASTER satellite data, *Int. Geosci. and Rem. Sens. Sympos. (IGARSS)*, no. 4423900, 4669-4670, 2008.
- Lee, R.J.\*, King, P.L. and **Ramsey, M.S.**, Analysis of synthetic quartzofeldspathic glasses using electron microprobe and thermal infrared spectroscopic methods, *Geol. Soc. Am. Abst. with Progs*, abs. #156-4, 2008.
- Pieri, D., Gillespie, A., Kargel, J. and **Ramsey, M.S.**, Geomorphology from Earth Orbit – Can it be done? , *Eos Trans. AGU*, 89(53), *Fall Mtg. Suppl.*, abs. H33A-0982, 2008.
- Prade, K., Byrnes, J., Finnegan, D., **Ramsey, M.** and Anderson, S., Applicability of apparent thermal inertia using spaceborne data of Amboy Crater, Mojave Desert, California, *IAVCEI, General Assem. Prog.*, P31, p. 64, 2008.
- Ramsey, M.S.**, *INVITED*: Mining below the sub-pixel scale: Past results and new directions in thermal infrared data analysis of the Earth and Mars, *Geol. Soc. Am. Abst. with Progs*, abs. #268-11, 2008.
- Ramsey, M.S.**, Anderson, S. and Wessels, R., *INVITED*: Active dome and pyroclastic flow deposits of Sheveluch Volcano, Kamchatka: Unique thermal infrared and morphologic field observations, *IAVCEI, General Assem. Prog.*, p. 67, 2008.
- Ramsey, M.S.**, Wessels, R., Dehn, J., Duda, K., Harris, A. and Watson, M., The NASA ASTER Urgent Request Program: The Last Eight Plus Years of Monitoring Kamchatka's Volcanoes From Space, *Eos Trans. AGU*, 89(53), *Fall Mtg. Suppl.*, abs. V41E-04, 2008.
- <sup>6</sup>Rose, S.\*, and **Ramsey, M.S.**, The eruptive behavior of Klyuchevskoy Volcano, Kamchatka, *Eos Trans. AGU*, 89(53), *Fall Mtg. Suppl.*, abs. V43A-2141, 2008.
- Simon, A., Eichelberger, J., West, M., **Ramsey, M.**, Newman, A., Reed, M., Kiryukhin, A. and Selyangin, O., Mutnovsky Volcano: Exploring the feedback loop between arc volcanism and continental hydrothermal systems, *Eos Trans. AGU*, 89(53), *Fall Mtg. Suppl.*, abs. V41E-08, 2008.
- 2007 Carter, A.J.\*, **Ramsey, M.S.** and Girina, O., Explosive eruption at Bezymianny Volcano captured by ASTER satellite data, *Eos Trans. AGU*, 88(23), *Jt. Assem. Suppl.*, abs. V23A-11, 2007.
- Carter A.J.\*, **Ramsey, M.S.** and van Manen, S.M., Thermal infrared investigation of the pyroclastic flow deposits and dome region of Bezymianny volcano, Kamchatka, Russia, *Eos Trans. AGU*, 88(52): *Fall Mtg. Suppl.*, abs. V21A-0386, 2007.
- King, P.L., Dalby, K.N., Dufresne, C.D.M., **Ramsey, M.S.**, Byrnes, J.M. and Lee, R.J.\*, Detecting glasses on planetary surfaces with IR spectroscopy, in *The Pulse of the Earth & Planetary Evolution: Rates and Rhythms, Cycles & Cataclysms*, W. Bleeker & P. Sylvester (eds.), *GAC NUNA Conf., Prog. Abstr. Vol.*, p. 84., 2007.
- Peet, V.M.\*, **Ramsey, M.S.** and Crown, D.A. Evaluating laboratory and satellite data of small terrestrial impact and volcanic craters as Mars analogs, *Eos Trans. AGU*, 88(52): *Fall Mtg. Suppl.*, abs. P21A-0218, 2007.
- Ramsey, M.S.** and Wessels, R.L., Monitoring changing eruption styles of Kilauea Volcano over the summer of 2007 with spaceborne infrared data, *Eos Trans. AGU*, 88(52): *Fall Mtg. Suppl.*, abs. V51H-07, 2007.
- Rose, S.\* and **Ramsey, M.S.**, Monitoring of the 2007 eruption of Kluichevskoi Volcano using the ASTER Urgent Request Protocol, *Eos Trans. AGU*, 88(52): *Fall Mtg. Suppl.*, abs. V21A-0388, 2007.
- Scheidt, S.\*, **Ramsey, M.S.** and Lancaster, N., Integration of ASTER TIR data and the Google Earth application to examine the relationships between sand transport pathways and dust emission hotspots, *Eos Trans. AGU*, 88(52): *Fall Mtg. Suppl.*, abs. NG41C-0667, 2007.
- Wessels, R.L., Schneider, D.G., **Ramsey, M.S.** and Mangan, M.T., ASTER observations of 2000-2007 thermal features at Pavlof Volcano and Mount Hague (Emmons Lake Volcanic Center), Alaska, *Eos Trans. AGU*, 88(52): *Fall Mtg. Suppl.*, abs. V41A-0399, 2007.

- 2006 Byrnes, J.M., Bandfield, J.L., Johnson, J.R., King, P.L., **Ramsey, M.S.** and Staid, M.I., Assessment of the composition and distribution of silicic volcanic glasses on Mars, *Eos Trans. AGU, 87: Fall Mtg. Suppl., abs. P23C-0071*, 2006.
- Carter, A.J.\*, **Ramsey, M.S.**, Durant, A.J. and Skilling, I.P., Multitemporal three dimensional imaging of volcanic products on the macro- and micro- scale, *Eos Trans. AGU, 87: Fall Mtg. Suppl., abs. V53B-1752*, 2006.
- Dalby, K.N., Dufresne, C.D.M., King, P.L., Byrnes, J.M., Lee, R.J.\*, and **Ramsey, M.S.**, Characterization of glasses using infrared spectroscopy, *Geochim. et Cosmochim. Acta, vol. 70, issue 18, A-125*, 2006.
- Ramsey, M.S.**, The critical need for moderate to high resolution thermal infrared data for volcanic hazard mitigation and process monitoring from the micron to the kilometer scale, *Eos Trans. AGU, 87: Fall Mtg. Suppl., abs. H32D-06*, 2006.
- Rose, S.\* and **Ramsey, M.S.**, Determining subpixel thermal anomalies and heat flux of Cerro Negro Volcano, Nicaragua: A TIR deconvolution approach, *Cities on Volcanoes Mtg., abs. SIVB-074-P*, 2006.
- Scheidt, S.\*, **Ramsey, M.S.** and Lancaster, N., Fusion of multitemporal/multispectral satellite image data for the Gran Desierto: Implications for long distance sand transport, *Int'l Conf. Aeolian Res. Mtg.*, 2006.
- Wessels, R.L., **Ramsey, M.S.**, Schneider, D.S., Coombs, M., Dehn, J. and Realmuto, V.J., ASTER urgent response to the 2006 eruption of Augustine Volcano, Alaska: Science and decision support gained from frequent high-resolution, satellite thermal infrared imaging of volcanic events, *Eos Trans. AGU, 87: Fall Mtg. Suppl., abs. V41F-04*, 2006.
- 2005 Anderson, S.W., **Ramsey, M.S.**, Crown, D.A., Byrnes, J.M. and Stofan, E., The role of preflow topography on the surface morphology and thermal evolution of actively inflating basaltic lava flows, *Eos Trans. AGU, 86(52): Fall Mtg. Suppl., abs. P33D-08*, 2005.
- Byrnes, J.M., Finnegan, D.C., **Ramsey, M.S.** and Anderson, S.W., Characterization of primary, eroded, and mantled volcanic surfaces using data fusion, *Eos Trans. AGU, 86(52): Fall Mtg. Suppl., abs. P41B-0931*, 2005.
- Carter, A.J.\*, **Ramsey, M.S.**, Belousov, A., Wessels, R.L. and Dehn, J., The January 2005 eruption of Bezymianny Volcano, Russia: Comparing ground and airborne thermal camera images to rapid-response ASTER satellite data, *Eos Trans. AGU, 86(52): Fall Mtg. Suppl., abs. V31A-0604*, 2005.
- Crown, D.A., Anderson, S.W., Byrnes, J.M. and **Ramsey, M.S.**, Distributary systems in basaltic flow fields: Insights from Mauna Ulu, Kilauea Volcano, Hawaii, *Eos Trans. AGU, 86(52): Fall Mtg. Suppl., abs. V53B-1564*, 2005.
- Ramsey, M.S.** and Wright, S.P.\*, *INVITED*: Mapping stratigraphy from space: Analysis of thermal infrared data of impact crater ejecta on Mars and Earth from the THEMIS and ASTER instruments, *Eos Trans. AGU, 86(52): Fall Mtg. Suppl., abs. P24A-07*, 2005.
- Ramsey, M.S.**, Schneider, D., Wessels, R. and Clark, M.\*, Modeling the ascent rate of the 2004 Mount St. Helens lava body using pre-eruption airborne thermal infrared camera data, *Eos Trans. AGU, 86(52): Fall Mtg. Suppl., abs. V53D-1604*, 2005.
- Schneider, D.J., Vallance, J.W., Logan, M., Wessels, R. and **Ramsey, M.S.**, Airborne thermal infrared imaging of the 2004-2005 eruption of Mount St. Helens, *Eos Trans. AGU, 86(52): Fall Mtg. Suppl., abs. V24A-01*, 2005.
- Vaughan, R.G., Hook, S.J., **Ramsey, M.S.**, Realmuto, V.J. and Schneider, D.J., Remotely monitoring volcanic activity at Mount St. Helens with thermal infrared data, *Eos Trans. AGU, 86(52): Fall Mtg. Suppl., abs. V53D-1603*, 2005.

- Vaughan, R.G., Hook, S.J., **Ramsey, M.S.**, Realmuto, V.J. and Schneider, D.J, Remotely Monitoring Volcanic Activity at Mount St. Helens with Thermal Infrared Data, *Geol. Soc. Am. Abst. with Progs*, v. 37, no. 7, p. 108, 2005.
- Wessels, R.L., **Ramsey, M.S.**, Dehn, J. and Senyukov, S., Mapping elevated temperatures on a thirty-year-old basalt flow of New Tolbachik Volcano using satellite and ground-based thermal infrared, *Eos Trans. AGU*, 86(52): *Fall Mtg. Suppl.*, abs. V31A-0605, 2005.
- 2004 Adleman, J.N., Larsen, J.F., **Ramsey, M.S.**, McGimsey, R.G. and Neal, C.A., Analysis of composition and chronology of dome emplacement at Black Peak, Alaska utilizing ASTER remote sensing data and field-based studies, in *Proc. of the 4th Biennial Workshop on Subduction Processes in the Japan-Kurile-Kamchatka-Aleutian Arcs*, p. 50, 2004.
- Byrnes, J.M., **Ramsey, M.S.** and King, P.L., Infrared spectroscopic analysis of synthetic glasses: Application to basaltic lava flow emplacement, *GAC-MAC Abs. Vol. 29, St. Catherines, ON, Canada*, p. 306, 2004.
- Byrnes, J., **Ramsey, M.S.**, Anderson, S. and Crown, D., Thermal and topographic characterization of active basaltic pahoehoe flow emplacement, in *Abstr. of the Gen. Assembly IAVCEI*, 2004.
- Kuhn, S.S.\* and **Ramsey, M.S.**, Characterization of dome processes at Soufrière Hills Volcano, Montserrat: Synthesis of infrared remote sensing data with a multi-parameter database, *GAC-MAC Abs. Vol. 29, St. Catherines, ON, Canada*, p. 314, 2004.
- Ramsey, M.S.**, *INVITED*: Synergistic use of thermal infrared satellite and field-based data to understand silicic lava emplacement processes, *Eos Trans. AGU*, 85(17), *Jt. Assem. Suppl.*, Abs. V53B-04, 2004.
- Ramsey, M.S.**, *INVITED*: The eruptions of Bezymianny Volcano as seen in the infrared: The linkage of dome emplacement processes with near-real time eruption monitoring, *GAC-MAC Abs. Vol. 29, St. Catherines, ON, Canada*, p. 313, 2004.
- Ramsey, M.S.** and Dehn, J., *INVITED*: The synergy of field and satellite-based thermal infrared observations for volcanic surfaces, *Eos Trans. AGU*, 85(47), *Fall Mtg. Suppl.*, abs. V32A-08, 2004.
- Ramsey, M.S.** and Dehn, J., The changing behavior of silicic lava domes in Kamchatka: Monitoring flow dynamics over four years with high resolution thermal infrared data, in *Abstr. of the Gen. Assembly IAVCEI*, 2004.
- Ramsey, M.S.** and Kuhn, S.\*, Fusion of Parametric and Thematic Data to Characterize the Soufrière Hills Volcanic Dome, in *Abstr. of the Gen. Assembly IAVCEI*, 2004.
- Ramsey, M.S.** and Misner, T.J.\*, Brush Fire Hazard Analysis in a Semi-Arid Urban Environment Using ASTER, ETM+ and SIR-C Data, *Fourth Annual ASTER Science Workshop, Tokyo, Japan*, p. 23, 2004.
- Ramsey, M.S.**, Dehn, J., Wessels, R., Byrnes, J., Duda, K., Maldonado, L. and Dwyer, J., The ASTER emergency scheduling system: A new project linking near-real-time satellite monitoring of disasters to the acquisition of high-resolution remote sensing data, *Eos Trans. AGU*, 85(47), *Fall Mtg. Suppl.*, abs. SF23A-0026, 2004.
- Schneider, D., Wessels, R. and **Ramsey, M.S.**, Airborne thermal infrared observations during the first month of the 2004 eruption of Mount St. Helens volcano, Washington, *Eos Trans. AGU*, 85(47), *Fall Mtg. Suppl.*, abs. V31E-05, 2004.
- Wessels, R., Senyukov, S., Tranbenkova, A., **Ramsey, M.S.** and Schneider, D., Detecting small geothermal features at Northern Pacific volcanoes with ASTER thermal infrared data, *Eos Trans. AGU*, 85(47), *Fall Mtg. Suppl.*, abs. V33C-1479, 2004.
- 2003 Adleman, J.N., Larsen, J.F., **Ramsey, M.S.**, McGimsey, R.G. and Neal, C.A., Analysis of composition and chronology of dome emplacement at Black Peak, Alaska utilizing ASTER remote sensing data and field-based studies, *Eos Trans. AGU*, 84(46), *Fall Mtg. Suppl.*, Abs. V31G-07, 2003.

- Kuhn, S.S.\* and **Ramsey, M.S.**, Growth of the Soufrière Hills Dome: Fusion of Thermal Infrared Spaceborne Data with a Multi-parameter Database, *Cities on Volcanoes 3 Mtg.*, 2003.
- McGimsey, R.G., Neal, C.A., Adleman, J.N., Larsen, J.F. and **Ramsey, M.S.**, Black Peak Caldera, Alaska: Preliminary investigations of the ~4600 BP caldera-forming eruption and subsequent post-caldera activity, *Am. Geophys. Union Fall Meeting (abs. V42B-342)*, 2003.
- Ramsey, M.S.** and Dehn, J., The explosive and effusive dome-forming eruptions of Kamchatkan volcanoes: Quantitative measurements from space, *Int. Union of Geod. Geophys. Abs. Progr. (abs. V05/03A/A04-004)*, 2003.
- Ramsey, M.S.**, Dehn, J., Adleman, J.N., Larsen, J.F., McGimsey, R.G., Neal, C.A. and Wessels, R., Deciphering silicic dome emplacement processes in the northern Pacific: Quantitative analyses of high resolution satellite and field-based data, *Eos Trans. AGU, 84(46), Fall Mtg. Suppl., Abs. V51F-346*, 2003.
- Wessels, R., **Ramsey, M.S.**, Schneider, D. and Dehn, J., Low-level volcano thermal anomaly survey of Northern Pacific volcanoes using night time ASTER TIR, *Am. Geophys. Union Fall Meeting (abs. V51F-350)*, 2003.
- 2002 Crown, D., Byrnes, J. and **Ramsey, M.S.**, Compound Lava Flow Fields on Planetary Surfaces: Hawaiian Analogue Studies, *Am. Geophys. Union Fall Meeting (abs. P71A-0438)*, 2002.
- Eisinger, C., Fink, J. and **Ramsey, M.S.**, Determining Crystal Abundance in Glassy Lavas: Combining Laboratory Infrared Spectroscopy With Remote Sensing, *Am. Geophys. Union Fall Meeting (abs. P72A-0484)*, 2002.
- Kirkland, L., Mustard, J., McAfee, J., Hapke, B. and **Ramsey, M.S.**, Mars Infrared Spectroscopy: From Theory and the Laboratory To Field Observations, *Am. Geophys. Union Fall Meeting (abs. P62B-11)*, 2002.
- Kuhn, S.S.\* and **Ramsey, M.S.**, Monitoring the Surface Changes and Growth of the Soufrière Hills Lava Dome: Thermal Infrared Analyses of Field and Spaceborne Data, *Am. Geophys. Union Fall Meeting (abs. V12A-1407)*, 2002.
- <sup>5</sup>Misner, T.\*, **Ramsey, M.S.** and Arrowsmith, J.R., Analysis of Brush Fire Scars in Semi-Arid Urban Environments: Implications for Future Fire and Flood Hazards Using Field and Satellite Data, *Am. Geophys. Union Fall Meeting (abs. B61C-0740)*, 2002.
- Ramsey, M.S.**, Closing the terrestrial-planetary remote sensing loop: Spectral, spatial and physical proxies, *Am. Geophys. Union Fall Meeting (abs. P62B-12)*, 2002.
- Ramsey, M.S.** and Pieri, D.C., *INVITED*: Monitoring, Assessment and Mitigation of Volcanic Hazards Using the Spaceborne ASTER Instrument, *Geol. Soc. Am. Abs. with Programs, v. 34, p. 242*, 2002.
- Pieri, D., **Ramsey, M.S.**, Abrams, M. and Abbott, E., The new global volcanology: Monitoring volcanoes around the world with ASTER and other new multispectral instruments, *ASTER Science Workshop*, p. 16, 2002.
- 2001 Byrnes, J.M., **Ramsey, M.S.** and Crown, D.A., Emplacement of basaltic flow fields: New insights using MODIS/ASTER airborne simulator (MASTER) data, *Eos Trans., AGU, 82:47, Fall Mtg. Suppl.*, p. F1356, 2001.
- Crown, D.A., Byrnes, J.M. and Ramsey, M.S., Mapping compound lava flow fields on planetary surfaces, *Eos Trans., AGU, 82:47, Fall Mtg. Suppl.*, 2001.
- Hellman, M.J.\* and **Ramsey, M.S.**, Analysis of hot springs in Yellowstone National Park using ASTER and AVIRIS remote sensing, *Eos Trans., AGU, 82:47, Fall Mtg. Suppl.*, p. F1360, 2001.
- <sup>4</sup>**Ramsey, M.S.** and Dehn, J., The first year of volcanic data from ASTER: Case studies of Bezymianny and Sheveluch Volcanoes, Kamchatka, *Eos Trans., AGU, 82:47, Fall Mtg. Suppl.*, p. F1354, 2001.

- <sup>3</sup>**Ramsey, M.S.**, Harris, A.J.L., Dehn, J. and Pirie, D., Thermal Anomaly Monitoring of the Ongoing Eruptions at Soufrière Hills Volcano, Montserrat and Bezymianny Volcano, Kamchatka: First Results From the New ASTER Instrument, *Eos Trans., AGU, 81:20, Spring Mtg. Suppl., abs. U31A-08*, 2001.
- Stefanov, W.L., Christensen, P.R. and **Ramsey, M.S.**, Remote Sensing of Urban Ecology at Regional and Global Scales: Results from the Central Arizona-Phoenix LTER Site and ASTER Urban Environmental Monitoring Program, *2nd Symposium, Remote Sensing of Urban Areas*, Regensburg, Germany, June 22-23, 2001.
- Stefanov, W.L., **Ramsey, M.S.** and Christensen, P.R., Fugitive Dust Generation, Transport, and Deposition in the Nogales, Arizona Region Using Enhanced Thematic Mapper Plus (ETM+) Data, *Eos Trans., AGU, 81:20, Spring Mtg. Suppl., abs. B32A-10*, 2001.
- 2000 Eisinger, C.L., **Ramsey, M.S.**, Wessels, R.L. and Fink, J.H., Discriminating Compositional Variations on the Silicic Domes of Medicine Lake Volcano, CA, with the New Airborne Hyperspectral MODIS/ASTER Simulator, in *Abstr. of the Gen. Assembly IAVCEI*, p. 158, 2000.
- Ramsey, M.S.**, *INVITED*: Mapping the City Landscape From Space: The Advanced Spaceborne Thermal Emission and Reflectance Radiometer (ASTER) Urban Environmental Monitoring Program, Invited (U01: Earth Sciences in the Cities special session): *Am. Geophys. Union Eos Trans., 81:19*, p. S11, 2000.
- <sup>2</sup>**Ramsey, M.S.** and Arrowsmith, J.R., Mitigating Future Fire and Flood Hazards in Arid Urban Regions: Initial Analysis of Brush Fire Scars With the new ASTER Instrument, *Am. Geophys. Union Eos Trans., 81:48*, p. F549, 2000.
- Ramsey, M.S.** and Fink, J.H., Hazard Mitigation Associated with Silicic Dome Emplacement: Monitoring Surface Textural Variations Using Remote Sensing, in *Abstr. of the Gen. Assembly IAVCEI*, p. 234, 2000.
- Ramsey, M.S.** and Stefanov, W.L., The Advanced Spaceborne Thermal Emission and Reflectance Radiometer (ASTER) Urban Environmental Monitoring program: Local results using airborne MASTER data from Phoenix, AZ, (Invited, MASTER special session), in *Proc. of the 14th Appl. Geol. Rem. Sens. Conf., Las Vegas, NV*, 634 pp., 2000.
- Wessels, R. and **Ramsey, M.S.**, Multi-sensor/Multi-wavelength Data Fusion Over Steep Volcanic Terrain: Analysis Challenges in the Next Era of Remote Sensing, *Am. Geophys. Union Eos Trans., 81:48*, p. F1255, 2000.
- 1999 **Ramsey, M.S.**, Wessels, R. and Eisinger, C., Accurate mapping and monitoring of silicic domes using thermal infrared and radar remote sensing: Implications of lava texture and surface roughness, *Am. Geophys. Union Eos Trans., 80:46*, p. F1145, 1999.
- 1998 **Ramsey, M.S.** and Lancaster, N., Using remote sensing to derive sediment mixing patterns in arid environments: Future global possibilities with the ASTER instrument, *Geol. Soc. Am. Abst. with Progs., 30:7*, p. A360, 1998.
- Ramsey, M.S.**, Fink, J.H., Wessels, R., Poland, M. and Ruff, S., Field spectroscopy and GPS analysis of silicic domes: Implications for future volcanic monitoring with the spaceborne ASTER instrument, *Am. Geophys. Union Eos Trans., 79:45*, p. F1010, 1998.
- 1997 **Ramsey, M.S.** and Fink, J.H., Mapping vesicularity of Hawaiian lava flows via thermal infrared remote sensing, *Am. Geophys. Union Eos Trans., 78:46*, p. F777, 1997.
- <sup>1</sup>**Ramsey, M.S.** and Fink, J.H., Remote determination of lava vesicularity: Technique preparation for the upcoming spaceborne ASTER instrument, *Geol. Soc. Am. Cordilleran Sec. Abst. with Progs., 29:5*, p. A58, 1997.
- Stefanov, W.L., Christensen, P.R. and **Ramsey, M.S.**, Mineralogic analysis of soils using linear deconvolution of mid-infrared spectra, *Geol. Soc. Am. Abst. with Progs., 30:7*, p. A138, 1998.

- 1996 **Ramsey, M.S.** and Fink, J.H., Estimating lava vesicularity: A new technique using thermal infrared remote sensing data, *Am. Geophys. Union Eos Trans.*, 77:46, p. F803, 1996.
- 1994 **Ramsey, M.S.** and Fink, J.H., Remote monitoring of volcanic domes: Detection of chemical, textural, and thermal heterogeneities, *Am. Geophys. Union Eos Trans.*, 75:46, p. F716, 1994.
- Ramsey, M.S.**, Howard, D.A., Christensen, P.R. and Lancaster, N., Sand sources and mineralogic variability within the Kelso Dune Field, Mojave Desert, California: Analysis of thermal infrared remote sensing data, *Geol. Soc. Am. Abst. with Progs.*, 26, p. A89, 1994.
- 1993 **Ramsey, M.S.**, Fink, J.H. and Christensen, P.R., Thermal emission analysis of mineral glasses: Application to remote sensing studies of Holocene silicic lava flows, in *Abstr. of the Gen. Assembly IAVCEI*, p. 89, 1993.

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<sup>4</sup> Chosen as a featured story on NASA's Earth Observatory Web Page

<sup>3</sup> Featured in NASA/American Geophysical Union press conference

<sup>2</sup> Chosen as a news story on NASA's Earth Observatory Web Page

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