

## Refereed articles in 2021

- [1] G. Alemanno, E. Garcia-Caurel, J. Carter, F. Poulet, R. Brunetto, A. Alèon-Toppani, R. G. Urso, O. Mivumbi, C. Boukari, V. Godard, and F. Borondics. Determination of optical constants from Martian analog materials using a spectro-polarimetric technique. *Planetary Space Science*, 195:105138, January 2021.
- [2] Jeremy Brossier, Laetitia Le Deit, John Carter, Nicolas Mangold, and Ernst Hauber. Reconstructing the infilling history within Robert Sharp crater, Mars: Insights from morphology and stratigraphy. *Icarus*, 358:114223, April 2021.
- [3] A. Cardesín-Moinelo, B. Geiger, G. Lacombe, B. Ristic, M. Costa, D. Titov, H. Svedhem, J. Marín-Yaseli, D. Merritt, P. Martin, M. A. López-Valverde, P. Wolkenberg, B. Gondet, Mars Express Team, and ExoMars 2016 Science Ground Segment Team. First year of coordinated science observations by Mars Express and ExoMars 2016 Trace Gas Orbiter. *Icarus*, 353:113707, January 2021.
- [4] J. D. P. Deshapriya, M. A. Barucci, E. B. Bierhaus, S. Fornasier, P. H. Hasselmann, F. Merlin, B. E. Clark, A. Praet, M. Fulchignoni, A. A. Simon, Victoria E. Hamilton, E. A. Cloutis, C. Lantz, X. D. Zou, J. Y. Li, D. C. Reuter, J. R. Brucato, G. Poggiali, R. T. Daly, D. Trang, S. Ferrone, D. N. DellaGiustina, and D. S. Lauretta. Spectral analysis of craters on (101955) Bennu. *Icarus*, 357:114252, March 2021.
- [5] J. Hernández-Bernal, A. Sánchez-Lavega, T. del Río-Gaztelurrutia, E. Ravanis, A. Cardesín-Moinelo, K. Connour, D. Tirsch, I. Ordóñez-Etxeberria, B. Gondet, S. Wood, D. Titov, N. M. Schneider, R. Hueso, R. Jaumann, and E. Hauber. An Extremely Elongated Cloud Over Arsia Mons Volcano on Mars: I. Life Cycle. *Journal of Geophysical Research (Planets)*, 126(3):e06517, March 2021.
- [6] Tra-Mi Ho, Ralf Jaumann, Jean-Pierre Bibring, Matthias Grott, Karl-Heinz Glaßmeier, Aurelie Moussi, Christian Krause, Ulrich Auster, Volodymyr Baturkin, Jens Biele, Federico Cordero, Barbara Cozzoni, Clement Dudal, Cinzia Fantinati, Christian Grimm, Jan-Thimo Grundmann, Maximilian Hamm, David Herčík, Kağan Kayal, Jörg Knollenberg, Oliver Küchemann, Eugen Ksenik, Caroline Lange, Michael Lange, Laurence Lorda, Michael Maibaum, Yuya Mimasu, Celine Cenac-Morthe, Tatsuaki Okada, Katharina Otto, Cedric Pilorget, Josef Reill, Takanao Saiki, Kaname Sasaki, Markus Schlotterer, Nicole Schmitz, Stefan Schröder, Nawarat Termtanasombat, Nortbert Toth, Yuichi Tsuda, Stephan Ulamec, Friederike Wolff, Tetsuo Yoshimitsu, Christan Ziach, and MASCOT Team. The MASCOT lander aboard Hayabusa2: The in-situ exploration of NEA (162173) Ryugu. *Planetary Space Science*, 200:105200, June 2021.
- [7] Sergio Jiménez-Monferrer, Miguel Ángel López-Valverde, Bernd Funke, Francisco González-Galindo, Arianna Piccialli, Maya García-Comas, Manuel López-Puertas, Brigitte Gondet, and Jean-Pierre Bibring. CO<sub>2</sub> retrievals in the Mars daylight thermosphere from its 4.3  $\mu\text{m}$  limb emission measured by OMEGA/MEx. *Icarus*, 353:113830, January 2021.

- [8] K. Kitazato, R. E. Milliken, T. Iwata, M. Abe, M. Ohtake, S. Matsuura, Y. Takagi, T. Nakamura, T. Hiroi, M. Matsuoka, L. Riu, Y. Nakauchi, K. Tsumura, T. Arai, H. Senshu, N. Hirata, M. A. Barucci, R. Brunetto, C. Pilorget, F. Poulet, J. P. Bibring, D. L. Domingue, F. Vilas, D. Takir, E. Palomba, A. Galiano, D. Perna, T. Osawa, M. Komatsu, A. Nakato, T. Arai, N. Takato, T. Matsunaga, M. Arakawa, T. Saiki, K. Wada, T. Kadono, H. Imamura, H. Yano, K. Shirai, M. Hayakawa, C. Okamoto, H. Sawada, K. Ogawa, Y. Iijima, S. Sugita, R. Honda, T. Morota, S. Kameda, E. Tatsumi, Y. Cho, K. Yoshioka, Y. Yokota, N. Sakatani, M. Yamada, T. Kouyama, H. Suzuki, C. Honda, N. Namiki, T. Mizuno, K. Matsumoto, H. Noda, Y. Ishihara, R. Yamada, K. Yamamoto, F. Yoshida, S. Abe, A. Higuchi, Y. Yamamoto, T. Okada, Y. Shimaki, R. Noguchi, A. Miura, N. Hirata, S. Tachibana, H. Yabuta, M. Ishiguro, H. Ikeda, H. Takeuchi, T. Shimada, O. Mori, S. Hosoda, R. Tsukizaki, S. Soldini, M. Ozaki, F. Terui, N. Ogawa, Y. Mimasu, G. Ono, K. Yoshikawa, C. Hirose, A. Fujii, T. Takahashi, S. Kikuchi, Y. Takei, T. Yamaguchi, S. Nakazawa, S. Tanaka, M. Yoshikawa, S. Watanabe, and Y. Tsuda. Thermally altered subsurface material of asteroid (162173) Ryugu. *Nature Astronomy*, 5:246–250, January 2021.
- [9] Lucia Mandon, Adam Parkes Bowen, Cathy Quantin-Nataf, John C. Bridges, John Carter, Lu Pan, Pierre Beck, Erwin Dehouck, Matthieu Volat, Nicolas Thomas, Gabriele Cremonese, Livio Leonardo Tornabene, and Patrick Thollot. Morphological and Spectral Diversity of the Clay-Bearing Unit at the ExoMars Landing Site Oxia Planum. *Astrobiology*, 21(4):464–480, March 2021.
- [10] S. Maurice, R. C. Wiens, P. Bernardi, P. Caïs, S. Robinson, T. Nelson, O. Gasnault, J. M. Reess, M. Deleuze, F. Rull, J. A. Manrique, S. Abbaki, R. B. Anderson, Y. André, S. M. Angel, G. Arana, T. Battault, P. Beck, K. Benzerara, S. Bernard, J. P. Berthias, O. Beyssac, M. Bonafous, B. Bousquet, M. Boutillier, A. Cadu, K. Castro, F. Chapron, B. Chide, K. Clark, E. Clavé, S. Clegg, E. Cloutis, C. Collin, E. C. Cordoba, A. Cousin, J. C. Dameury, W. D’Anna, Y. Daydou, A. Debus, L. Deflores, E. Dehouck, D. Delapp, G. De Los Santos, C. Donny, A. Doressoundiram, G. Dromart, B. Dubois, A. Dufour, M. Dupieux, M. Egan, J. Ervin, C. Fabre, A. Fau, W. Fischer, O. Forni, T. Fouchet, J. Frydenvang, S. Gauffre, M. Gauthier, V. Gharakanian, O. Gilard, I. Gontijo, R. Gonzalez, D. Granena, J. Grotzinger, R. Hassen-Khodja, M. Heim, Y. Hello, G. Hervet, O. Humeau, X. Jacob, S. Jacquinod, J. R. Johnson, D. Kouach, G. Lacombe, N. Lanza, L. Lapauw, J. Laserna, J. Lasue, L. Le Deit, S. Le Mouélic, E. Le Comte, Q. M. Lee, C. Legett, R. Leveille, E. Lewin, C. Leyrat, G. Lopez-Reyes, R. Lorenz, B. Lucero, J. M. Madariaga, S. Madsen, M. Madsen, N. Mangold, F. Manni, J. F. Mariscal, J. Martinez-Frias, K. Mathieu, R. Mathon, K. P. McCabe, T. McConnochie, S. M. McLennan, J. Mekki, N. Melikechi, P. Y. Meslin, Y. Micheau, Y. Michel, J. M. Michel, D. Mimoun, A. Misra, G. Montagnac, C. Montaron, F. Montmessin, J. Moros, V. Mousset, Y. Morizet, N. Murdoch, R. T. Newell, H. Newsom, N. Nguyen Tuong, A. M. Ollila, G. Orttner, L. Oudda, L. Pares, J. Parisot, Y. Parot, R. Pérez, D. Pheav, L. Picot, P. Pilleri, C. Pilorget, P. Pinet, G. Pont, F. Poulet, C. Quantin-Nataf, B. Quertier, D. Rambaud,

- W. Rapin, P. Romano, L. Roucayrol, C. Royer, M. Ruellan, B. F. Sandoval, V. Sautter, M. J. Schoppers, S. Schröder, H. C. Seran, S. K. Sharma, P. Sobron, M. Sodki, A. Sournac, V. Sridhar, D. Standarovsky, S. Storms, N. Striebig, M. Tatat, M. Toplis, I. Torre-Fdez, N. Toulemont, C. Velasco, M. Veneranda, D. Venhaus, C. Virmontois, M. Viso, P. Willis, and K. W. Wong. The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. *Space Sci. Rev.*, 217(3):47, April 2021.
- [11] Lu Pan, John Carter, Cathy Quantin-Nataf, Maxime Pineau, Boris Chauviré, Nicolas Mangold, Laetitia Le Deit, Benjamin Rondeau, and Vincent Chevrier. Voluminous Silica Precipitated from Martian Waters during Late-stage Aqueous Alteration. *The Planetary Science Journal*, 2(2):65, April 2021.
- [12] C. Pilorget, J. Fernando, L. Riu, K. Kitazato, and T. Iwata. Global-scale albedo and spectro-photometric properties of Ryugu from NIRS3/Hayabusa2, implications for the composition of Ryugu and the representativity of the returned samples. *Icarus*, 355:114126, February 2021.
- [13] Cathy Quantin-Nataf, John Carter, Lucia Mandon, Patrick Thollot, Matthew Balme, Matthieu Volat, Lu Pan, Damien Loizeau, Cédric Millot, Sylvain Breton, Erwin Dehouck, Peter Fawdon, Sanjeev Gupta, Joel Davis, Peter M. Grindrod, Andrea Pacifici, Benjamin Bultel, Pascal Allemand, Anouck Ody, Loic Lozach, and Jordan Broyer. Oxia Planum: The Landing Site for the ExoMars “Rosalind Franklin” Rover Mission: Geological Context and Prelanding Interpretation. *Astrobiology*, 21(3):345–366, March 2021.
- [14] Lucie Riu, Cédric Pilorget, Ralph Milliken, Kohei Kitazato, Tomoki Nakamura, Yuichiro Cho, Moe Matsuoka, Seiji Sugita, Masanao Abe, Shuji Matsuura, Makiko Ohtake, Shingo Kameda, Naoya Sakatani, Eri Tatsumi, Yasuhiro Yokota, and Takahiro Iwata. Spectral characterization of the craters of Ryugu as observed by the NIRS3 instrument on-board Hayabusa2. *Icarus*, 357:114253, March 2021.
- [15] André Szantai, Joachim Audouard, François Forget, Kevin S. Olsen, Brigitte Gondet, Ehouarn Millour, Jean-Baptiste Madeleine, Alizée Pottier, Yves Langevin, and Jean-Pierre Bibring. Martian cloud climatology and life cycle extracted from Mars Express OMEGA spectral images. *Icarus*, 353:114101, January 2021.
- [16] E. Tatsumi, C. Sugimoto, L. Riu, S. Sugita, T. Nakamura, T. Hiroi, T. Morota, M. Popescu, T. Michikami, K. Kitazato, M. Matsuoka, S. Kameda, R. Honda, M. Yamada, N. Sakatani, T. Kouyama, Y. Yokota, C. Honda, H. Suzuki, Y. Cho, K. Ogawa, M. Hayakawa, H. Sawada, K. Yoshioka, C. Pilorget, M. Ishida, D. Domingue, N. Hirata, S. Sasaki, J. de León, M. A. Barucci, P. Michel, M. Suemitsu, T. Saiki, S. Tanaka, F. Terui, S. Nakazawa, S. Kikuchi, T. Yamaguchi, N. Ogawa, G. Ono, Y. Mimasu, K. Yoshikawa, T. Takahashi, Y. Takei, A. Fujii, Y. Yamamoto, T. Okada, C. Hirose, S. Hosoda, O. Mori, T. Shimada, S. Soldini, R. Tsukizaki, T. Mizuno, T. Iwata, H. Yano, M. Ozaki, M. Abe, M. Ohtake, N. Namiki,

- S. Tachibana, M. Arakawa, H. Ikeda, M. Ishiguro, K. Wada, H. Yabuta, H. Takeuchi, Y. Shimaki, K. Shirai, N. Hirata, Y. Iijima, Y. Tsuda, S. Watanabe, and M. Yoshikawa. Collisional history of Ryugu’s parent body from bright surface boulders. *Nature Astronomy*, 5:39–45, January 2021.
- [17] David Trang, Michelle S. Thompson, Beth E. Clark, Hannah H. Kaplan, Xiao-Duan Zou, Jian-Yang Li, Salvatore M. Ferrone, Victoria E. Hamilton, Amy A. Simon, Dennis C. Reuter, Lindsay P. Keller, M. Antonietta Barucci, Humberto Campins, Cateline Lantz, Daniella N. DellaGiustina, Ronald-Louis Ballouz, Erica R. Jawin, Jr. Connolly, Harold C., Kevin J. Walsh, and Dante S. Lauretta. The Role of Hydrated Minerals and Space Weathering Products in the Bluing of Carbonaceous Asteroids. *The Planetary Science Journal*, 2(2):68, April 2021.
- [18] Marco Veneranda, Guillermo Lopez-Reyes, Elena Pascual Sanchez, Agata M. Krzesińska, Jose Antonio Manrique-Martinez, Aurelio Sanz-Arranz, Cateline Lantz, Emmanuel Lalla, Andoni Moral, Jesús Medina, Francois Poulet, Henning Dypvik, Stephanie C. Werner, Jorge L. Vago, and Fernando Rull. ExoMars Raman Laser Spectrometer: A Tool to Semi-quantify the Serpentinization Degree of Olivine-Rich Rocks on Mars. *Astrobiology*, 21(3):307–322, March 2021.
- [19] Roger C. Wiens, Sylvestre Maurice, Scott H. Robinson, Anthony E. Nelson, Philippe Cais, Pernelle Bernardi, Raymond T. Newell, Sam Clegg, Shiv K. Sharma, Steven Storms, Jonathan Deming, Darrel Beckman, Ann M. Ollila, Olivier Gasnault, Ryan B. Anderson, Yves André, S. Michael Angel, Gorka Arana, Elizabeth Auden, Pierre Beck, Joseph Becker, Karim Benzerara, Sylvain Bernard, Olivier Beyssac, Louis Borges, Bruno Bousquet, Kerry Boyd, Michael Caffrey, Jeffrey Carlson, Kepa Castro, Jorden Celis, Baptiste Chide, Kevin Clark, Edward Cloutis, Elizabeth C. Cordoba, Agnes Cousin, Magdalena Dale, Lauren Deflores, Dorothea Delapp, Muriel Deleuze, Matthew Dirmyer, Christophe Donny, Gilles Dromart, M. George Duran, Miles Egan, Joan Ervin, Cecile Fabre, Amaury Fau, Woodward Fischer, Olivier Forni, Thierry Fouchet, Reuben Fresquez, Jens Frydenvang, Denine Gasway, Ivair Gontijo, John Grotzinger, Xavier Jacob, Sophie Jacquino, Jeffrey R. Johnson, Roberta A. Klisiewicz, James Lake, Nina Lanza, Javier Laserna, Jeremie Lasue, Stéphane Le Mouélic, Carey Leggett, Richard Leveille, Eric Lewin, Guillermo Lopez-Reyes, Ralph Lorenz, Eric Lorigny, Steven P. Love, Briana Lucero, Juan Manuel Madariaga, Morten Madsen, Soren Madsen, Nicolas Mangold, Jose Antonio Manrique, J. P. Martinez, Jesus Martinez-Frias, Kevin P. McCabe, Timothy H. McConnochie, Justin M. McGlown, Scott M. McLennan, Nouredine Melikechi, Pierre-Yves Meslin, John M. Michel, David Mimoun, Anupam Misra, Gilles Montagnac, Franck Montmessin, Valerie Mousset, Naomi Murdoch, Horton Newsom, Logan A. Ott, Zachary R. Ousnamer, Laurent Pares, Yann Parot, Rafal Pawluczyk, C. Glen Peterson, Paolo Pilleri, Patrick Pinet, Gabriel Pont, Francois Poulet, Cheryl Provost, Benjamin Quertier, Heather Quinn, William Rapin, Jean-Michel Reess, Amy H. Regan, Adriana L. Reyes-Newell, Philip J. Romano, Clement Royer, Fernando Rull, Benigno Sandoval, Joseph H. Sarrao, Violaine Sautter, Mar-

cel J. Schoppers, Susanne Schröder, Daniel Seitz, Terra Shepherd, Pablo Sobron, Bruno Dubois, Vishnu Sridhar, Michael J. Toplis, Imanol Torre-Fdez, Ian A. Trettel, Mark Underwood, Andres Valdez, Jacob Valdez, Dawn Venhaus, and Peter Willis. The SuperCam Instrument Suite on the NASA Mars 2020 Rover: Body Unit and Combined System Tests. *Space Sci. Rev.*, 217(1):4, February 2021.