

SELECTED PUBLICATIONS

PEER-REVIEWED PUBLICATIONS

- Broz, P., **Oehler, D.** Mazzini, A., Hauber, E., Komatsu, G., Etiope, G., Curin, V. (2023). An overview of sedimentary volcanism on Mars. *Earth Surf. Dynam.* 11, 633-661.
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- Oehler, D. Z.**, Etiope, G. (2021). “Methane on Mars: Subsurface sourcing and conflicting atmospheric measurements,” Chapter 7 in *Mars Geological Enigmas: From the late Noachian Epoch to the Present-Day*, (eds. R. Soare, S. Conway, J.-P. Williams, D.Z. Oehler), Elsevier., pp. 149-174.
- Thornton, B. B., Etiope, G., Schwietzke, S., Milkov, A.V., Klusman, R.W., Judd, A., **Oehler, D. Z.** (2021). Conflicting estimates of natural geologic methane emissions. *Elementa Science of the Anthropocene* 9 (1): <https://doi.org/10.1525/elementa.2021.00031>.
- Etiope, G., **Oehler, D. Z.** (2019). Methane spikes, background seasonality and non-detections on Mars: A geological perspective. *Planetary and Space Science* 168, 52-61.
- Giuranna, M., S. Viscardy, F. Daerden, L. Neary, G. Etiope, **D. Oehler**, V. Formisano, A. Aronica, P. Wolkenberg, S. Aoki, A. Cardesín-Moinelo, J. Marín-Yaseli de la Parra, D. Merritt, M. Amoroso (2019). Independent confirmation of a methane spike on Mars and a source region east of Gale crater. *Nature Geoscience* 12, 326-332.
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- Soare, R. J., **Oehler, D. Z.**, Mischna, M. (2018). Prologue: Mariners’ Way: Beyond the Future to the Past. **In:** *Dynamic Mars: Recent and Current Landscape Evolution of the Red Planet*. R. Soare, S. J. Conway, S. M. Clifford (eds.), Elsevier.
- Yung, Y., L., Chen, P., Nealson, K., Atreya, S., Beckett, P., Blank, J., Ehlmann, B., Eiler, J., Etiope, G., G. Ferry, J. G., Forget, F., Gao, P., Hu, R., Kleinböhl, A., Klusman, R., Lefèvre, F., Miller, C., Mischna, M., Mumma, M., Newman, S., **Oehler, D.**, Okumura, M., Oremland, R., Orphan, V., Popa, R., Russell, M., Shen, L., Sherwood Lollar, B., Staehle, R., Stamenković, V., Templeton, A., C. Vandaale, A. C., Viscardy, S., Webster, C., Wennberg, P. O., Wong, M., Worden, J. (2018). Methane on Mars and Habitability: Challenges and Responses, *Astrobiology* 18 (10), doi: 0.1089/ast.2018.1917.
- Oehler, D. Z.**, Etiope, G. (2017). Methane Seepage on Mars: Where to look and why. *Astrobiology* 17 (12), 1233-1264.

Oehler, D. Z., M. M. Walsh, K. Sugitani, M.-C. Liu, C. H. House (2017). Large and robust lenticular microorganisms on the young Earth. *Precambrian Research* 296,112-119.

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Oehler, D. Z., Cady, S. (2014). [Biogenicity and Syngeneity of Organic Matter in Ancient Sedimentary Rocks: Recent advances in the search for evidence of past life.](#) *Challenges* 5 (Special Issue: Challenges in Astrobiology), 260-283.

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- Oehler, D. Z.,** Robert, F. Walter, M. R., Sugitani, K., Meibom, A., Mostefaoui, S., Gibson, E. (2010). Diversity in the Archaean Biosphere: New Insights from NanoSIMS. *Astrobiology* 10, 413-424.
- Allen, C. C., **Oehler, D. Z.** (2008). A case for ancient springs in Arabia Terra, Mars. *Astrobiology* 8 (6), 1093-1112.
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SELECTED ABSTRACTS

- Oehler, D. Z.**, Salvatore, M., Etiope, G., Allen, C. C. (2021). [Focusing the search for organic biosignatures on Mars.](#) *52nd LPSC, Abs. #1353.*
- Boles, H. O., Williams, A. J., **Oehler, D.** (2021). [Organics detection in ancient cratonic rocks with TMAH wet chemistry.](#) *52nd LPSC, Abs. # 1777.*
- Oehler, D. Z.**, Allen, C. C., Osinski, G. R. (2020). [Potential hot spring deposits in Vernal Crater, Mars: Exceptional candidates for future exploration.](#) *51st LPSC, Abs. #1563.*
- Oehler, D. Z.**, Etiope, G. (2019) (Invited). [THE MARTIAN UNDERGROUND: Sites of potential methane generation, accumulation, and release.](#) *AGU Annual Meeting, San Francisco. Abs. #512053.*
- Viscardy, S., Daerden, F., Neary, L., Giuranna, M., Etiope, G., **Oehler, D. Z.** (2019). [Searching for the most probable source locations of the methane detected by Curiosity and PFS in mid-June 2013.](#) *9th International Conference on Mars. Abs. #6162.*
- Oehler, D. Z.**, Etiope, G. (2018). [Late Mars Methane.](#) *Late Mars Workshop 2018, Abs. #5024.*
- Viscardy, S., Daerden, F., Neary, L., Giuranna, M., Etiope, G., **Oehler, D. Z.** (2018). [LOOKING FOR THE SOURCES OF METHANE ON MARS: statistical analysis of GCM simulations.](#) *European Planetary Science Conference 2018, Berlin, Germany, EPSC Abstracts 12, EPSC2018-689, 2018.*
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Wiens, R. C. et al. (**Oehler**, co-author) (2015). [Centimeter to Decimeter size spherical and cylindrical features in Gale crater sediments.](#) *46th LPSC, Abs. #1249.*

Nachon, M. et al. (**Oehler**, co-author) (2015). [Diagenetic features analyzed by ChemCam/Curiosity at Pahrump Hills, Gale crater, Mars.](#) *46th LPSC, Abs. #1524.*

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Oehler, D. Z., Allen, C. C. (2010) (*Invited*). [SEDIMENT PREDICTION THROUGH BASIN ANALYSIS: An example from Acidalia Planitia.](#) *1st Intl. Conf. Mars Sedimentol. & Stratigraph. Abs. #6069.*

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