Mariek E Schmidt

List of Publications by Year
in descending order

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47 papers	6,232 citations	117453 34 h-index	214527 47 g-index
49 all docs	49 docs citations	49 times ranked	3381 citing authors

#	Article	IF	Citations
1	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
2	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
3	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	6.0	367
4	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	6.0	327
5	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
6	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	6.0	323
7	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	6.0	280
8	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
9	MÃ¶ssbauer mineralogy of rock, soil, and dust at Meridiani Planum, Mars: Opportunity's journey across sulfate-rich outcrop, basaltic sand and dust, and hematite lag deposits. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	225
10	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	6.0	215
11	Redox stratification of an ancient lake in Gale crater, Mars. Science, 2017, 356, .	6.0	209
12	Pyroclastic Activity at Home Plate in Gusev Crater, Mars. Science, 2007, 316, 738-742.	6.0	174
13	Geochemical properties of rocks and soils in Gusev Crater, Mars: Results of the Alpha Particle Xâ€Ray Spectrometer from Cumberland Ridge to Home Plate. Journal of Geophysical Research, 2008, 113, .	3.3	162
14	Iron mineralogy and aqueous alteration from Husband Hill through Home Plate at Gusev Crater, Mars: Results from the MÃ¶ssbauer instrument on the Spirit Mars Exploration Rover. Journal of Geophysical Research, 2008, 113, .	3.3	162
15	Mineralogy, provenance, and diagenesis of a potassic basaltic sandstone on Mars: CheMin Xâ€ray diffraction of the Windjana sample (Kimberley area, Gale Crater). Journal of Geophysical Research E: Planets, 2016, 121, 75-106.	1.5	159
16	Alkaline volcanic rocks from the Columbia Hills, Gusev crater, Mars. Journal of Geophysical Research, 2006, 111, .	3.3	148
17	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	6.0	134
18	Hydrothermal processes at Gusev Crater: An evaluation of Paso Robles class soils. Journal of Geophysical Research, 2008, 113, .	3.3	129

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19	Igneous mineralogy at Bradbury Rise: The first ChemCam campaign at Gale crater. Journal of Geophysical Research E: Planets, 2014, 119, 30-46.	1.5	114
20	Geochemical diversity in first rocks examined by the Curiosity Rover in Gale Crater: Evidence for and significance of an alkali and volatileâ€rich igneous source. Journal of Geophysical Research E: Planets, 2014, 119, 64-81.	1.5	113
21	Overview of the Mars Science Laboratory mission: Bradbury Landing to Yellowknife Bay and beyond. Journal of Geophysical Research E: Planets, 2014, 119, 1134-1161.	1.5	104
22	A global Mars dust composition refined by the Alphaâ€Particle Xâ€ray Spectrometer in Gale Crater. Geophysical Research Letters, 2016, 43, 67-75.	1.5	95
23	Segmentation of the Cascade Arc as indicated by Sr and Nd isotopic variation among diverse primitive basalts. Earth and Planetary Science Letters, 2008, 266, 166-181.	1.8	94
24	Structure and stratigraphy of Home Plate from the Spirit Mars Exploration Rover. Journal of Geophysical Research, 2008, 113, .	3.3	81
25	High manganese concentrations in rocks at Gale crater, Mars. Geophysical Research Letters, 2014, 41, 5755-5763.	1.5	81
26	Hydrothermal origin of halogens at Home Plate, Gusev Crater. Journal of Geophysical Research, 2008, 113, .	3.3	71
27	MAHLI at the Rocknest sand shadow: Science and scienceâ€enabling activities. Journal of Geophysical Research E: Planets, 2013, 118, 2338-2360.	1.5	67
28	APXSâ€derived chemistry of the Bagnold dune sands: Comparisons with Gale Crater soils and the global Martian average. Journal of Geophysical Research E: Planets, 2017, 122, 2623-2643.	1.5	62
29	Chemical variations in Yellowknife Bay formation sedimentary rocks analyzed by ChemCam on board the Curiosity rover on Mars. Journal of Geophysical Research E: Planets, 2015, 120, 452-482.	1.5	51
30	Potassiumâ€rich sandstones within the Gale impact crater, Mars: The APXS perspective. Journal of Geophysical Research E: Planets, 2016, 121, 1981-2003.	1.5	51
31	Understanding the signature of rock coatings in laser-induced breakdown spectroscopy data. Icarus, 2015, 249, 62-73.	1.1	49
32	Chemistry and texture of the rocks at Rocknest, Gale Crater: Evidence for sedimentary origin and diagenetic alteration. Journal of Geophysical Research E: Planets, 2014, 119, 2109-2131.	1.5	48
33	Structure, stratigraphy, and origin of Husband Hill, Columbia Hills, Gusev Crater, Mars. Journal of Geophysical Research, 2008, 113, .	3.3	44
34	Zinc and germanium in the sedimentary rocks of Gale Crater on Mars indicate hydrothermal enrichment followed by diagenetic fractionation. Journal of Geophysical Research E: Planets, 2017, 122, 1747-1772.	1.5	42
35	Elemental Composition and Chemical Evolution of Geologic Materials in Gale Crater, Mars: APXS Results From Bradbury Landing to the Vera Rubin Ridge. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006536.	1.5	33
36	The evolution of North Sister: A volcano shaped by extension and ice in the central Oregon Cascade Arc. Bulletin of the Geological Society of America, 2009, 121, 643-662.	1.6	32

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37	APXSâ€Derived Compositional Characteristics of Vera Rubin Ridge and Murray Formation, Gale Crater, Mars: Geochemical Implications for the Origin of the Ridge. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006319.	1.5	31
38	The Medusae Fossae Formation as the single largest source of dust on Mars. Nature Communications, 2018, 9, 2867.	5.8	29
39	Deep Mafic Roots to Arc Volcanoes: Mafic Recharge and Differentiation of Basaltic Andesite at North Sister Volcano, Oregon Cascades. Journal of Petrology, 2011, 52, 603-641.	1.1	28
40	The primary fO2 of basalts examined by the Spirit rover in Gusev Crater, Mars: Evidence for multiple redox states in the martian interior. Earth and Planetary Science Letters, 2013, 384, 198-208.	1.8	28
41	The evolution of a heterogeneous Martian mantle: Clues from K, P, Ti, Cr, and Ni variations in Gusev basalts and shergottite meteorites. Earth and Planetary Science Letters, 2010, 296, 67-77.	1.8	27
42	Dusty Rocks in Gale Crater: Assessing Areal Coverage and Separating Dust and Rock Contributions in APXS Analyses. Journal of Geophysical Research E: Planets, 2018, 123, 1649-1673.	1.5	25
43	Formation of Tridymite and Evidence for a Hydrothermal History at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006569.	1.5	21
44	Re and Os isotopes of the central Oregon Cascades and along the arc indicate variable homogenization and mafic growth in the deep crust. Geochimica Et Cosmochimica Acta, 2013, 109, 345-364.	1.6	10
45	Particle Induced X-ray Emission spectrometry (PIXE) of Hawaiian volcanics: An analogue study to evaluate the APXS field analysis of geologic materials on Mars. Icarus, 2020, 345, 113708.	1.1	9
46	Multiphase Volatilization of Halogens at the Soilâ€Atmosphere Interface on Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006929.	1.5	7
47	Megacrystic pyroxene basalts sample deep crustal gabbroic cumulates beneath the Mount Taylor volcanic field, New Mexico. Journal of Volcanology and Geothermal Research, 2016, 316, 1-11.	0.8	4