

Matthew Steele-Macinnis

List of Publications by Year in descending order

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69
papers

2,229
citations

236925

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docs citations

74
times ranked

1912
citing authors

#	ARTICLE	IF	CITATIONS
1	A model for the solubility of anhydrite in H ₂ O-NaCl fluids from 25 to 800°C, 0.1 to 1400 MPa, and 0 to 60 wt% NaCl: Applications to hydrothermal ore-forming systems. <i>Chemical Geology</i> , 2022, 587, 120609.	3.3	2
2	Mixing of brine with oil triggered sphalerite deposition at Pine Point, Northwest Territories, Canada. <i>Geology</i> , 2021, 49, 488-492.	4.4	3
3	Fluids associated with carbonatitic magmatism: A critical review and implications for carbonatite magma ascent. <i>Earth-Science Reviews</i> , 2021, 215, 103509.	9.1	53
4	Fluid evolution of a hematite-dominated, magmatic-hydrothermal Cu-Au deposit at Qibaoshan, Shandong Province, China. <i>Ore Geology Reviews</i> , 2021, 131, 104052.	2.7	4
5	Neoproterozoic copper-gold mineralization in the Amani area, southwestern Tanzania. <i>Ore Geology Reviews</i> , 2021, 132, 104070.	2.7	2
6	Evidence for iron-rich sulfate melt during magnetite(-apatite) mineralization at El Laco, Chile. <i>Geology</i> , 2021, 49, 1044-1048.	4.4	22
7	Texture, trace elements, sulfur and He-Ar isotopes in pyrite: Implication for ore-forming processes and fluid source of the Guoluolongwa gold deposit, East Kunlun metallogenic belt. <i>Ore Geology Reviews</i> , 2021, 136, 104260.	2.7	10
8	Anhydrite replacement reaction in nodular pyrite breccia and its geochemical controls on the ³⁴ S signature of pyrite in the TAG hydrothermal mound, 26° N Mid Atlantic Ridge. <i>Lithos</i> , 2021, 400-401, 106357.	1.4	2
9	Synthetic Fluid Inclusions XXIV. In situ Monitoring of the Carbonation of Olivine Under Conditions Relevant to Carbon Capture and Storage Using Synthetic Fluid Inclusion Micro-Reactors: Determination of Reaction Rates. <i>Frontiers in Climate</i> , 2021, 3, .	2.8	8
10	The Alichur Dome, South Pamir, Western India—Asia Collisional Zone: Detailing the Neogene Shakhdara—Alichur Syn-collisional Gneiss-Dome Complex and Connection to Lithospheric Processes. <i>Tectonics</i> , 2020, 39, e2019TC005735.	2.8	27
11	Synthetic fluid inclusions XXII: Properties of H ₂ O-NaCl±KCl fluid inclusions trapped under vapor- and salt-saturated conditions with emphasis on the effect of KCl on phase equilibria. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 272, 78-92.	3.9	6
12	Shift in the Raman symmetric stretching band of N ₂ , CO ₂ , and CH ₄ as a function of temperature, pressure, and density. <i>Journal of Raman Spectroscopy</i> , 2020, 51, 555-568.	2.5	19
13	Extreme fractionation and magmatic-hydrothermal transition in the formation of the Abu Dabbab rare-metal granite, Eastern Desert, Egypt. <i>Lithos</i> , 2020, 352-353, 105329.	1.4	18
14	A fundamental role of carbonate-sulfate melts in the formation of iron oxide-apatite deposits. <i>Nature Geoscience</i> , 2020, 13, 751-757.	12.9	35
15	Phase equilibria, thermodynamic properties, and solubility of quartz in saline-aqueous-carbonic fluids: Application to orogenic and intrusion-related gold deposits. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 283, 201-221.	3.9	25
16	Formation of hydrothermal fluorite-hematite veins by mixing of continental basement brine and redbed-derived fluid: Schwarzwald mining district, SW-Germany. <i>Journal of Geochemical Exploration</i> , 2020, 212, 106512.	3.2	9
17	Complex carbonate-sulfate brines in fluid inclusions from carbonatites: Estimating compositions in the system H ₂ O-Na-K-CO ₃ -SO ₄ -Cl. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 277, 224-242.	3.9	31
18	A comprehensive numerical model for the thermodynamic and transport properties of H ₂ O-NaCl fluids. <i>Chemical Geology</i> , 2020, 557, 119840.	3.3	4

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19	Direct evidence for fluid overpressure during hydrocarbon generation and expulsion from organic-rich shales. <i>Geology</i> , 2020, 48, 374-378.	4.4	37
20	Fluid inclusion phase ratios, compositions and densities from ambient temperature to homogenization, based on PVTX properties of H ₂ O NaCl. <i>Earth-Science Reviews</i> , 2019, 198, 102924.	9.1	20
21	Coarse muscovite veins and alteration in porphyry systems. <i>Ore Geology Reviews</i> , 2019, 113, 103045.	2.7	13
22	An Occurrence of Phlogopite-rich Alteration in the Yerington District, Nevada. <i>Canadian Mineralogist</i> , 2019, 57, 271-294.	1.0	0
23	Seeking the most hydrous, primitive arc melts: The glass is half full. <i>American Mineralogist</i> , 2019, 104, 1217-1218.	1.9	5
24	Sodic-Calcic Family of Alteration in Porphyry Systems of Arizona and Adjacent New Mexico. <i>Economic Geology</i> , 2019, 114, 745-770.	3.8	8
25	Thermobarometry of Three Skarns in the Ludwig Area, Nevada, Based On Raman Spectroscopy and Elastic Modeling of Mineral Inclusions in Garnet. <i>Canadian Mineralogist</i> , 2019, 57, 25-45.	1.0	5
26	Solubility and speciation of iron in hydrothermal fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 252, 126-143.	3.9	38
27	A model for the solubility of minerals in saline aqueous fluids in the crust and upper mantle. <i>Numerische Mathematik</i> , 2019, 319, 754-787.	1.4	19
28	Orogenic gold formation in an evolving, decompressing hydrothermal system: Genesis of the Samut gold deposit, Eastern Desert, Egypt. <i>Ore Geology Reviews</i> , 2019, 105, 236-257.	2.7	25
29	Multi-reservoir fluid mixing processes in rift-related hydrothermal veins, Schwarzwald, SW-Germany. <i>Journal of Geochemical Exploration</i> , 2018, 186, 158-186.	3.2	40
30	Relationship between Raman spectral features and fugacity in mixtures of gases. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 581-593.	2.5	17
31	Formation of bedding-parallel, fibrous calcite veins in laminated source rocks of the Eocene Dongying Depression: A growth model based on petrographic observations. <i>International Journal of Coal Geology</i> , 2018, 200, 18-35.	5.0	40
32	Single-crystal hematite (U-Th)/He dates and fluid inclusions document widespread Cryogenian sand injection in crystalline basement. <i>Earth and Planetary Science Letters</i> , 2018, 500, 145-155.	4.4	26
33	Fluid inclusions in the system H ₂ O-NaCl-CO ₂ : An algorithm to determine composition, density and isochore. <i>Chemical Geology</i> , 2018, 498, 31-44.	3.3	49
34	Magmatic evolution of the Campi Flegrei and Procida volcanic fields, Italy, based on interpretation of data from well-constrained melt inclusions. <i>Earth-Science Reviews</i> , 2018, 185, 325-356.	9.1	16
35	Coarse muscovite veins and alteration deep in the Yerington batholith, Nevada: insights into fluid exsolution in the roots of porphyry copper systems. <i>Mineralium Deposita</i> , 2017, 52, 463-470.	4.1	17
36	Sulfate brines in fluid inclusions of hydrothermal veins: Compositional determinations in the system H ₂ O-Na-Ca-Cl-SO ₄ . <i>Geochimica Et Cosmochimica Acta</i> , 2017, 209, 184-203.	3.9	30

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37	Barometric constraints based on apatite inclusions in garnet. <i>American Mineralogist</i> , 2017, 102, 743-749.	1.9	13
38	Heterogeneously entrapped, vapor-rich melt inclusions record pre-eruptive magmatic volatile contents. <i>Contributions To Mineralogy and Petrology</i> , 2017, 172, 1.	3.1	21
39	Pressures of skarn mineralization at Casting Copper, Nevada, USA, based on apatite inclusions in garnet. <i>Geology</i> , 2017, 45, 947-950.	4.4	11
40	Speciation and Structural Properties of Hydrothermal Solutions of Sodium and Potassium Sulfate Studied by Molecular Dynamics Simulations. <i>ChemPhysChem</i> , 2016, 17, 1446-1453.	2.1	10
41	Application of low-temperature microthermometric data for interpreting multicomponent fluid inclusion compositions. <i>Earth-Science Reviews</i> , 2016, 159, 14-35.	9.1	41
42	Synthetic saline-aqueous and hydrocarbon fluid inclusions trapped in calcite at temperatures and pressures relevant to hydrocarbon basins: A reconnaissance study. <i>Marine and Petroleum Geology</i> , 2016, 76, 88-97.	3.3	19
43	Detection of liquid H ₂ O in vapor bubbles in reheated melt inclusions: Implications for magmatic fluid composition and volatile budgets of magmas?. <i>American Mineralogist</i> , 2016, 101, 1691-1695.	1.9	32
44	Quartz-in-garnet inclusion barometry under fire: Reducing uncertainty from model estimates. <i>Geology</i> , 2016, 44, 699-702.	4.4	31
45	Ion Association in Hydrothermal Sodium Sulfate Solutions Studied by Modulated FT-IR-Raman Spectroscopy and Molecular Dynamics. <i>Journal of Physical Chemistry B</i> , 2015, 119, 9847-9857.	2.6	24
46	Bubbles matter: An assessment of the contribution of vapor bubbles to melt inclusion volatile budgets. <i>American Mineralogist</i> , 2015, 100, 806-823.	1.9	175
47	Hydrothermal properties of the COS/D ₂ water model: a polarizable charge-on-spring water model, at elevated temperatures and pressures. <i>RSC Advances</i> , 2015, 5, 75846-75856.	3.6	1
48	Synthetic fluid inclusions XIX. Experimental determination of the vapor-saturated liquidus of the system H ₂ O–NaCl–FeCl ₂ . <i>Geochimica Et Cosmochimica Acta</i> , 2015, 148, 34-49.	3.9	28
49	Synthetic fluid inclusions XX. Critical PT _x properties of H ₂ O–FeCl ₂ fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 148, 50-61.	3.9	23
50	Geothermobarometric history of subduction recorded by quartz inclusions in garnet. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 350-360.	2.5	74
51	Silicate speciation in H ₂ O–Na ₂ O–SiO ₂ fluids from 3 to 40 mol% SiO ₂ , to 600 °C and 2 GPa. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 136, 126-141.	3.9	11
52	Seismic precursors linked to highly compressible fluids at oceanic transform faults. <i>Nature Geoscience</i> , 2014, 7, 757-761.	12.9	19
53	QulB Calc: A MATLAB® script for geobarometry based on Raman spectroscopy and elastic modeling of quartz inclusions in garnet. <i>Computers and Geosciences</i> , 2014, 66, 155-157.	4.2	17
54	Reply to the comment by R.J. Bakker on the paper "Effect of the vapor phase on the salinity of halite-bearing aqueous fluid inclusions" by M. Steele-MacInnis and R.J. Bodnar. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 135, 354-358.	3.9	2

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55	Magma mixing and high fountaining during the 1959 K��lauea Iki eruption, Hawai��. Earth and Planetary Science Letters, 2014, 400, 102-112.	4.4	42
56	Volumetrics of CO ₂ Storage in Deep Saline Formations. Environmental Science & Technology, 2013, 47, 79-86.	10.0	19
57	Vibrational properties of silica species in MgO��SiO ₂ glasses obtained from ab initio molecular dynamics. Chemical Geology, 2013, 346, 22-33.	3.3	35
58	Effect of the vapor phase on the salinity of halite-bearing aqueous fluid inclusions estimated from the halite dissolution temperature. Geochimica Et Cosmochimica Acta, 2013, 115, 205-216.	3.9	19
59	Calibration of zircon as a Raman spectroscopic pressure sensor to high temperatures and application to water-silicate melt systems. American Mineralogist, 2013, 98, 643-650.	1.9	55
60	PVTX Properties of H ₂ O-CO ₂ -"salt" at PTX Conditions Applicable to Carbon Sequestration in Saline Formations. Reviews in Mineralogy and Geochemistry, 2013, 77, 123-152.	4.8	17
61	Vibrational mode frequencies of silica species in SiO ₂ -H ₂ O liquids and glasses from <i>ab initio</i> molecular dynamics. Journal of Chemical Physics, 2012, 136, 154501.	3.0	50
62	Vibrational mode frequencies of H ₄ SiO ₄ , D ₄ SiO ₄ , H ₆ Si ₂ O ₇ , and H ₆ Si ₃ O ₉ in aqueous environment, obtained from <i>ab initio</i> molecular dynamics. Journal of Chemical Physics, 2012, 137, 164506.	3.0	16
63	The role of fluid phase immiscibility in quartz dissolution and precipitation in sub-seafloor hydrothermal systems. Earth and Planetary Science Letters, 2012, 321-322, 139-151.	4.4	41
64	A numerical model to estimate trapping conditions of fluid inclusions that homogenize by halite disappearance. Geochimica Et Cosmochimica Acta, 2012, 92, 14-22.	3.9	118
65	HokieFlincs_H ₂ O-NaCl : A Microsoft Excel spreadsheet for interpreting microthermometric data from fluid inclusions based on the PVTX properties of H ₂ O-NaCl. Computers and Geosciences, 2012, 49, 334-337.	4.2	279
66	Quartz precipitation and fluid inclusion characteristics in sub-seafloor hydrothermal systems associated with volcanogenic massive sulfide deposits. Open Geosciences, 2012, 4, 275-286.	1.7	7
67	Numerical model to determine the composition of H ₂ O-NaCl-CaCl ₂ fluid inclusions based on microthermometric and microanalytical data. Geochimica Et Cosmochimica Acta, 2011, 75, 21-40.	3.9	178
68	Thermodynamic Model for the Effect of Post-entrapment Crystallization on the H ₂ O-CO ₂ Systematics of Vapor-saturated, Silicate Melt Inclusions. Journal of Petrology, 2011, 52, 2461-2482.	2.8	104
69	Salt precipitation in magmatic-hydrothermal systems associated with upper crustal plutons. Geology, 2011, 39, G37163.1.	4.4	8