

# John A Mavrogenes

## List of Publications by Year in descending order

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89  
papers

5,688  
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87888

38  
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76900

74  
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93  
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docs citations

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times ranked

3355  
citing authors

#	ARTICLE	IF	CITATIONS
1	The relative effects of pressure, temperature and oxygen fugacity on the solubility of sulfide in mafic magmas. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 1173-1180.	3.9	585
2	The Magnetite Crisis in the Evolution of Arc-related Magmas and the Initial Concentration of Au, Ag and Cu. <i>Journal of Petrology</i> , 2010, 51, 2445-2464.	2.8	351
3	The Sulfide Capacity and the Sulfur Content at Sulfide Saturation of Silicate Melts at 1400degreesC and 1 bar. <i>Journal of Petrology</i> , 2002, 43, 1049-1087.	2.8	336
4	Redistribution of trace elements during prograde metamorphism from lawsonite blueschist to eclogite facies; implications for deep subduction-zone processes. <i>Contributions To Mineralogy and Petrology</i> , 2003, 146, 205-222.	3.1	322
5	The key role of mica during igneous concentration of tantalum. <i>Contributions To Mineralogy and Petrology</i> , 2014, 167, 1.	3.1	211
6	Gold Solubility in Supercritical Hydrothermal Brines Measured in Synthetic Fluid Inclusions. <i>Science</i> , 1999, 284, 2159-2163.	12.6	198
7	PARTIAL MELTING OF SULFIDE ORE DEPOSITS DURING MEDIUM- AND HIGH-GRADE METAMORPHISM. <i>Canadian Mineralogist</i> , 2002, 40, 1-18.	1.0	183
8	Experimental constraints on element mobility from subducted sediments using high-P synthetic fluid/melt inclusions. <i>Chemical Geology</i> , 2007, 239, 228-249.	3.3	171
9	Geochemical heterogeneity and element mobility in deeply subducted oceanic crust; insights from high-pressure mafic rocks from New Caledonia. <i>Chemical Geology</i> , 2004, 206, 21-42.	3.3	154
10	Generation of porphyry copper deposits by gas-brine reaction in volcanic arcs. <i>Nature Geoscience</i> , 2015, 8, 235-240.	12.9	154
11	Hydrogen movement into and out of fluid inclusions in quartz: Experimental evidence and geologic implications. <i>Geochimica Et Cosmochimica Acta</i> , 1994, 58, 141-148.	3.9	151
12	The importance of talc and chlorite - hybrid rocks for volatile recycling through subduction zones; evidence from the high-pressure subduction mélange of New Caledonia. <i>Contributions To Mineralogy and Petrology</i> , 2008, 155, 181-198.	3.1	148
13	An experimental study of the solubility of molybdenum in H <sub>2</sub> O and KCl-H <sub>2</sub> O solutions from 500 Å°C to 800 Å°C, and 150 to 300 MPa. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 2316-2330.	3.9	147
14	Linking high-grade gold mineralization to earthquake-induced fault-valve processes in the Porgera gold deposit, Papua New Guinea. <i>Geology</i> , 2014, 42, 383-386.	4.4	138
15	Origin of chromitites in layered intrusions: Evidence from chromite-hosted melt inclusions from the Stillwater Complex. <i>Geology</i> , 2005, 33, 893.	4.4	133
16	Rare earth element mobility in and around carbonatites controlled by sodium, potassium, and silica. <i>Science Advances</i> , 2020, 6, .	10.3	96
17	Sulfur isotope and trace element systematics of zoned pyrite crystals from the El Indio Au-Cu-Ag deposit, Chile. <i>Contributions To Mineralogy and Petrology</i> , 2016, 171, 1.	3.1	82
18	Chalcophile element systematics in volcanic glasses from the northwestern Lau Basin. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	2.5	81

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19	Fluid compositions reveal fluid nature, metal deposition mechanisms, and mineralization potential: An example at the Haobugao Zn-Pb skarn, China. <i>Geology</i> , 2021, 49, 473-477.	4.4	79
20	Partial melting of the Broken Hill Galena-Sphalerite ore: Experimental studies in the system PbS-FeS-ZnS-(Ag <sub>2</sub> S). <i>Economic Geology</i> , 2001, 96, 205-210.	3.8	78
21	Ti site occupancy in zircon. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 905-921.	3.9	72
22	Petrogenesis of the Greenhills Complex, Southland, New Zealand: magmatic differentiation and cumulate formation at the roots of a Permian island-arc volcano. <i>Contributions To Mineralogy and Petrology</i> , 2003, 144, 703-721.	3.1	69
23	Geology and Intrusion-Related Affinity of the Morila Gold Mine, Southeast Mali. <i>Economic Geology</i> , 2011, 106, 727-750.	3.8	66
24	Redistribution of Gold within Arsenopyrite and Lollingite during Pro- and Retrograde Metamorphism: Application to Timing of Mineralization. <i>Economic Geology</i> , 2001, 96, 525-534.	3.8	60
25	The competing effects of sulfide saturation versus degassing on the behavior of the chalcophile elements during the differentiation of hydrous melts. <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 1490-1507.	2.5	57
26	The Effect of FeO on the Sulfur Content at Sulfide Saturation (SCSS) and the Selenium Content at Selenide Saturation of Silicate Melts. <i>Journal of Petrology</i> , 2015, 56, 1407-1424.	2.8	57
27	A XANES study of Cu speciation in high-temperature brines using synthetic fluid inclusions. <i>American Mineralogist</i> , 2006, 91, 1773-1782.	1.9	56
28	Copper speciation in vapor-phase fluid inclusions from the Mole Granite, Australia. <i>American Mineralogist</i> , 2002, 87, 1360-1364.	1.9	55
29	Assessment of the uncertainties and limitations of quantitative elemental analysis of individual fluid inclusions using synchrotron X-ray fluorescence (SXRF). <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 3987-3995.	3.9	54
30	Petrogenesis of contact-style PGE mineralization in the northern lobe of the Bushveld Complex: comparison of data from the farms Rooipoort, Townlands, Drenthe and Nonnenwerth. <i>Mineralium Deposita</i> , 2008, 43, 255-280.	4.1	52
31	Carbonatitic versus hydrothermal origin for fluorapatite REE-Th deposits: Experimental study of REE transport and crustal anatexis-metasomatism. <i>Numerische Mathematik</i> , 2018, 318, 335-366.	1.4	48
32	A synthetic fluid inclusion study of copper solubility in hydrothermal brines from 525 to 725°C and 0.3 to 1.7GPa. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 3970-3985.	3.9	45
33	Controls on gold solubility in arc magmas: An experimental study at 1000°C and 4kbar. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 2165-2189.	3.9	45
34	The Fluorapatite REE-Th Vein Deposit at Nolans Bore: Genesis by Carbonatite Metasomatism. <i>Journal of Petrology</i> , 2020, 61, .	2.8	44
35	Combining in situ isotopic, trace element and textural analyses of quartz from four magmatic-hydrothermal ore deposits. <i>Contributions To Mineralogy and Petrology</i> , 2013, 166, 1119-1142.	3.1	43
36	Trace element and sulfur isotopic evidence for redox changes during formation of the Wallaby Gold Deposit, Western Australia. <i>Ore Geology Reviews</i> , 2017, 82, 31-48.	2.7	42

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37	Geology and Genesis of the Giant Pulang Porphyry Cu-Au District, Yunnan, Southwest China. <i>Economic Geology</i> , 2019, 114, 275-301.	3.8	42
38	Generation of metal-rich felsic magmas during crustal anatexis. <i>Geology</i> , 2003, 31, 765.	4.4	39
39	Trace Element Stratigraphy of the Bellevue Core, Northern Bushveld: Multiple Magma Injections Obscured by Diffusive Processes. <i>Journal of Petrology</i> , 2014, 55, 859-882.	2.8	39
40	SULFIDE MELT INCLUSIONS AS EVIDENCE FOR THE EXISTENCE OF A SULFIDE PARTIAL MELT AT BROKEN HILL, AUSTRALIA. <i>Economic Geology</i> , 2005, 100, 773-779.	3.8	38
41	Silicate-sulfide liquid immiscibility in modern arc basalt (Tolbachik volcano, Kamchatka): Part I. Occurrence and compositions of sulfide melts. <i>Chemical Geology</i> , 2018, 478, 102-111.	3.3	38
42	Using melt inclusions to determine parent-magma compositions of layered intrusions: Application to the Greenhills Complex (New Zealand), a platinum group minerals-bearing, island-arc intrusion. <i>Geology</i> , 2000, 28, 991.	4.4	37
43	HYDROUS SULFIDE MELTING: EXPERIMENTAL EVIDENCE FOR THE SOLUBILITY OF H <sub>2</sub> O IN SULFIDE MELTS. <i>Economic Geology</i> , 2005, 100, 157-164.	3.8	37
44	Mobilization of Gold as a Polymetallic Melt during Pelite Anatexis at the Challenger Deposit, South Australia: A Metamorphosed Archean Gold Deposit. <i>Economic Geology</i> , 2002, 97, 1249-1271.	3.8	36
45	SULFOSALT MELTS: EVIDENCE OF HIGH-TEMPERATURE VAPOR TRANSPORT OF METALS IN THE FORMATION OF HIGH-SULFIDATION LODE GOLD DEPOSITS. <i>Economic Geology</i> , 2010, 105, 257-262.	3.8	36
46	REE Redistribution Textures in Altered Fluorapatite: Symplectites, Veins, and Phosphate-Silicate-Carbonate Assemblages from the Nolans Bore P-REE-Th Deposit, Northern Territory, Australia. <i>Canadian Mineralogist</i> , 2018, 56, 331-354.	1.0	35
47	A preliminary investigation of chlorine XANES in silicate glasses. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	34
48	Platinum-group elements and gold in sulfide melts from modern arc basalt (Tolbachik volcano,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30	1.4	34
49	Geochronological constraints on the polymetamorphic evolution of the granulite-hosted Challenger gold deposit: implications for assembly of the northwest Gawler Craton. <i>Australian Journal of Earth Sciences</i> , 2004, 51, 1-14.	1.0	32
50	Experimental observations on noble metal nanonuggets and Fe-Ti oxides, and the transport of platinum group elements in silicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 192, 258-278.	3.9	30
51	Recognizing hydrothermal alteration through a granulite facies metamorphic overprint at the challenger Au deposit, South Australia. <i>Chemical Geology</i> , 2007, 243, 64-89.	3.3	27
52	Hydrothermal controls on the genesis of REE deposits: Insights from an in situ XAS study of Yb solubility and speciation in high temperature fluids (T < 400 Å°C). <i>Chemical Geology</i> , 2015, 417, 228-237.	3.3	26
53	A synthetic fluid inclusion study of the solubility of monazite-(La) and xenotime-(Y) in H <sub>2</sub> O-Na-K-Cl-F-CO <sub>2</sub> fluids at 800 Å°C and 0.5 GPa. <i>Chemical Geology</i> , 2016, 442, 121-129.	3.3	25
54	Mineral solubility and hydrous melting relations in the deep earth: Analysis of some binary A H <sub>2</sub> O system pressure-temperature-composition topologies. <i>Numerische Mathematik</i> , 2007, 307, 833-855.	1.4	24

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55	Metallogeny of the Zoujiashan uranium deposit in the Mesozoic Xiangshan volcanic-intrusive complex, southeast China: Insights from chemical compositions of hydrothermal apatite and metal elements of individual fluid inclusions. <i>Ore Geology Reviews</i> , 2019, 113, 103085.	2.7	23
56	Sulfosalt melts and heavy metal (As, Sb, Bi, Sn, Pb, Cu) fractionation during volcanic gas expansion: the El Indio (Chile) paleo- <i>ex</i> fumarole. <i>Geofluids</i> , 2012, 12, 199-215.	0.7	22
57	Significance of high temperature fluids and melts in the Grasberg porphyry copper-gold deposit. <i>Chemical Geology</i> , 2019, 508, 210-224.	3.3	21
58	A cold-sealing capsule design for synthesis of fluid inclusions and other hydrothermal experiments in a piston-cylinder apparatus. <i>American Mineralogist</i> , 2006, 91, 203-210.	1.9	20
59	Sulphur solubility and sulphide immiscibility in silicate melts as a function of the concentration of manganese, nickel, tungsten and copper at 1 Åtm and 1400 Å°C. <i>Chemical Geology</i> , 2008, 255, 236-249.	3.3	20
60	Crustal sequestration of magmatic sulfur dioxide. <i>Geology</i> , 2017, 45, 211-214.	4.4	20
61	Noble metal nanonugget insolubility in geological sulfide liquids. <i>Geology</i> , 2020, 48, 939-943.	4.4	20
62	XANES evidence for sulphur speciation in Mn-, Ni- and W-bearing silicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 6847-6867.	3.9	18
63	Tungsten isotopes as tracers of core-mantle interactions: The influence of subducted sediments. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 751-762.	3.9	18
64	Nb-Ta fractionation in peraluminous granites: A marker of the magmatic-hydrothermal transition: COMMENT. <i>Geology</i> , 2016, 44, e394-e394.	4.4	18
65	Complex REE systematics of carbonatites and weathering products from uniquely rich Mount Weld REE deposit, Western Australia. <i>Ore Geology Reviews</i> , 2021, 139, 104539.	2.7	18
66	Petrogenesis and metallogenic significance of multistage granites in Shimensi tungsten polymetallic deposit, Dahutang giant ore field, South China. <i>Lithos</i> , 2019, 336-337, 326-344.	1.4	17
67	Comparison of decrepitation, microthermometric and compositional characteristics of fluid inclusions in barren and auriferous mesothermal quartz veins of the Cowra Creek Gold District, New South Wales, Australia. <i>Journal of Geochemical Exploration</i> , 1995, 54, 167-175.	3.2	16
68	Determination of Selenium Concentrations in NIST SRM 610, 612, 614 and Geological Glass Reference Materials Using the Electron Probe, LA-ICP-MS and SHRIMP II. <i>Geostandards and Geoanalytical Research</i> , 2009, 33, 309-317.	3.1	15
69	Textural Evidence for Extensive Melting of the Broken Hill Orebody. <i>Economic Geology</i> , 2011, 106, 869-882.	3.8	15
70	EXPERIMENTAL EVIDENCE OF SULFIDE MELT EVOLUTION VIA IMMISCIBILITY AND FRACTIONAL CRYSTALLIZATION. <i>Canadian Mineralogist</i> , 2013, 51, 841-850.	1.0	15
71	Effect of S on the aqueous and gaseous transport of Cu in porphyry and epithermal systems: Constraints from in situ XAS measurements up to 600 Å°C and 300 bars. <i>Chemical Geology</i> , 2017, 466, 500-511.	3.3	14
72	Fluid properties and origins of the Lannigou Carlin-type gold deposit, SW China: Evidence from SHRIMP oxygen isotopes and LA-ICP-MS trace element compositions of hydrothermal quartz. <i>Journal of Geochemical Exploration</i> , 2020, 215, 106546.	3.2	14

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73	Evolution of chalcophile elements in the magmas of the Bonin Islands. <i>Chemical Geology</i> , 2019, 508, 234-249.	3.3	13
74	The effect of CO <sub>2</sub> on the speciation of bromine in low-temperature geological solutions: an XANES study. <i>Journal of Synchrotron Radiation</i> , 2007, 14, 219-226.	2.4	12
75	Mineralogy, paragenesis, and mineral zoning of the West Fork Mine, Virburnum Trend, Southeast Missouri. <i>Economic Geology</i> , 1992, 87, 113-124.	3.8	10
76	The effect of CO <sub>2</sub> on the speciation of RbBr in solution at temperatures to 579°C and pressures to 0.26GPa. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 2631-2644.	3.9	10
77	Quadruple sulfur isotopic fractionation during pyrite desulfidation to pyrrhotite. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 273, 354-366.	3.9	9
78	Silica hydrate preserved with <sup>18</sup> O-rich quartz in high-temperature hydrothermal quartz in the high sulfidation copper-gold deposit at El Indio, Chile. <i>Chemical Geology</i> , 2015, 391, 90-99.	3.3	6
79	Compositions and Classification of Fractionated Boninite Series Melts from the Izu-Bonin-Mariana Arc: A Machine Learning Approach. <i>Journal of Petrology</i> , 2021, 62, .	2.8	6
80	The Magnetite Crisis in the Evolution of Arc-related Magmas and the Initial Concentration of Au, Ag and Cu. <i>Journal of Petrology</i> , 2012, 53, 1089-1089.	2.8	5
81	Metallogenic ages and sulfur sources of the giant Dahutang W-Cu-Mo ore field, South China: Constraints from muscovite <sup>40</sup> Ar/ <sup>39</sup> Ar dating and in situ sulfur isotope analyses. <i>Ore Geology Reviews</i> , 2021, 134, 104141.	2.7	5
82	In situ elemental and Sr-Nd isotopic compositions of hydrothermal apatite from the Shazhou U deposit in the Xiangshan complex: Implications for the origins of ore-forming fluids of volcanic related U deposits in South China. <i>Journal of Asian Earth Sciences</i> , 2022, 233, 105230.	2.3	4
83	Reply to comments on "Redistribution of trace elements during prograde metamorphism from lawsonite blueschist to eclogite facies: implications for deep subduction zone processes". <i>Contributions To Mineralogy and Petrology</i> , 2004, 148, 506-509.	3.1	3
84	Magmatic processes recorded in plagioclase and the geodynamic implications in the giant Shimensi W-Cu-Mo deposit, Dahutang ore field, South China. <i>Journal of Asian Earth Sciences</i> , 2021, 212, 104734.	2.3	3
85	Sources of auriferous fluids associated with a Neoproterozoic BIF-hosted orogenic gold deposit revealed by the multiple sulfur isotopic compositions of zoned pyrites. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	3.1	2
86	The sign of <sup>33</sup> S is independent of pyrite morphology. <i>Chemical Geology</i> , 2020, 532, 119369.	3.3	1
87	Cationic substitutions in sphalerite from the Porgera mine, Papua New Guinea. <i>Canadian Mineralogist</i> , 2021, 59, 573-587.	1.0	1
88	Resolving sub-micrometer-scale zonation of trace elements in quartz using TOF-SIMS. <i>American Mineralogist</i> , 2022, 107, 955-969.	1.9	1
89	Using melt inclusions to determine parent-magma compositions of layered intrusions: Application to the Greenhills Complex (New Zealand), a platinum group minerals-bearing, island-arc intrusion. <i>Geology</i> , 2000, 28, 991-994.	4.4	1