Hugh Stc O'neill

List of Publications by Year
in descending order

29 papers	2,016 citations	430874 18 h-index	434195 31 g-index
31 all docs	31 docs citations	31 times ranked	1773 citing authors

#	Article	IF	Citations
1	The effect of melt composition on trace element partitioning: an experimental investigation of the activity coefficients of FeO, NiO, CoO, MoO2 and MoO3 in silicate melts. Chemical Geology, 2002, 186, 151-181.	3.3	271
2	Collisional erosion and the non-chondritic composition of the terrestrial planets. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 4205-4238.	3.4	230
3	The effect of temperature on the equilibrium distribution of trace elements between clinopyroxene, orthopyroxene, olivine and spinel in upper mantle peridotite. Chemical Geology, 2005, 221, 65-101.	3.3	180
4	Zinc isotope composition of the Earth and its behaviour during planetary accretion. Chemical Geology, 2018, 477, 73-84.	3.3	122
5	A re-assessment of the oxidation state of iron in MORB glasses. Earth and Planetary Science Letters, 2018, 483, 114-123.	4.4	120
6	The infrared signature of water associated with trivalent cations in olivine. Earth and Planetary Science Letters, 2007, 261, 134-142.	4.4	118
7	Evaporation of moderately volatile elements from silicate melts: experiments and theory. Geochimica Et Cosmochimica Acta, 2019, 260, 204-231.	3.9	102
8	The oxidation state of iron in Mid-Ocean Ridge Basaltic (MORB) glasses: Implications for their petrogenesis and oxygen fugacities. Earth and Planetary Science Letters, 2018, 504, 152-162.	4.4	91
9	Titanium substitution mechanisms in forsterite. Chemical Geology, 2007, 242, 176-186.	3.3	83
10	Standard Gibbs free energy of formation for Cu2O, NiO, CoO, and FexO: High resolution electrochemical measurements using zirconia solid electrolytes from 900â€“1400 K. Geochimica Et Cosmochimica Acta, 1986, 50, 2439-2452.	3.9	74
11	The solubility and oxidation state of tungsten in silicate melts: Implications for the comparative chemistry of W and Mo in planetary differentiation processes. Chemical Geology, 2008, 255, 346-359.	3.3	72
12	Comparative diffusion coefficients of major and trace elements in olivine at â¼4950 Â°C from a xenocryst included in dioritic magma. Geology, 2010, 38, 331-334.	4.4	69
13	Thermodynamic data from redox reactions at high temperatures. III. Activity-composition relations in Ni-Pd alloys from EMF measurements at 850?1250 K, and calibration of the NiO+Ni-Pd assemblage as a redox sensor. Contributions To Mineralogy and Petrology, 1994, 116, 327-339.	3.1	66
14	Gibbs free energies of formation of RuO 2 , IrO 2 , and OsO 2 : A high-temperature electrochemical and calorimetric study. Geochimica Et Cosmochimica Acta, 1997, 61, 5279-5293.	3.9	66
15	Crystal chemistry of synthetic hercynite (FeAl2O4) from XRD structural refinements and MÃ¶ssbauer spectroscopy. European Journal of Mineralogy, 1994, 6, 39-52.	1.3	64
16	The effect of Cr on the solubility of Al in orthopyroxene: experiments and thermodynamic modelling. Contributions To Mineralogy and Petrology, 2000, 140, 84-98.	3.1	61
17	An experimental determination of the effect of pressure on the Fe3+/ÂFe ratio of an anhydrous silicate melt to 3.0 GPa. American Mineralogist, 2006, 91, 404-412.	1.9	56
18	The Gibbs free energy of formation and heat capacity of Î²-Rh2O3 and MgRh2O4, the MgOî—¸Rhî—¸O phase diagram, and constraints on the stability of Mg2Rh 4+O4. Geochimica Et Cosmochimica Acta, 1997, 61, 4159-4171.	3.9	21

#	Article	IF	Citations
19	Direct observation of spinodal decomposition in the magnetite-hercynite system by susceptibility measurements and transmission electron microscopy. American Mineralogist, 2005, 90, 1278-1283.	1.9	20
20	Beryllium diffusion in olivine: A new tool to investigate timescales of magmatic processes. Earth and Planetary Science Letters, 2016, 450, 71-82.	4.4	17
21	Determination of Selenium Concentrations in NIST SRM 610, 612, 614 and Geological Glass Reference Materials Using the Electron Probe, LAâ€ICPâ€MS and SHRIMP II. Geostandards and Geoanalytical Research, 2009, 33, 309-317.	3.1	15
22	The sulfate capacities of silicate melts. Geochimica Et Cosmochimica Acta, 2022, 334, 368-382.	3.9	14
23	Mg diffusion in forsterite from 1250â€“1600 Â°C. American Mineralogist, 2020, 105, 525-537.	1.9	12
24	The oxidation state and coordination environment of antimony in silicate glasses. Chemical Geology, 2019, 524, 283-294.	3.3	11
25	The oxidation state of chromium in basaltic silicate melts. Geochimica Et Cosmochimica Acta, 2021, 306, 304-320.	3.9	10
26	The coordination of Cr2+ in silicate glasses and implications for mineral-melt fractionation of Cr isotopes. Chemical Geology, 2021, 586, 120483.	3.3	9
27	A combined Fourier transform infrared and Cr K-edge X-ray absorption near-edge structure spectroscopy study of the substitution and diffusion of H in Cr-doped forsterite. European Journal of Mineralogy, 2021, 33, 113-138.	1.3	8
28	Coordination change of Ge4+ and Ga3+ in silicate melt with pressure. Geochimica Et Cosmochimica Acta, 2021, 303, 184-204.	3.9	8
29	Comment on â€œCompositional and temperature effects on sulfur speciation and solubility in silicate meltsâ€•by Nash et al. [Earth Planet. Sci. Lett. 507 (2019) 187â€“198]. Earth and Planetary Science Letters, 2021, 560, 116843.	4.4	7