

# Hans Keppler

## List of Publications by Year in descending order

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65  
papers

6,876  
citations

61857

43  
h-index

106150

65  
g-index

68  
all docs

68  
docs citations

68  
times ranked

4275  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical Conductivity of $\text{KCl-H}_2\text{O}$ Fluids in the Crust and Lithospheric Mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	1.4	3
2	A systematic assessment of the diamond trap method for measuring fluid compositions in high-pressure experiments. <i>American Mineralogist</i> , 2021, 106, 28-37.	0.9	3
3	Electrical Conductivity in Texturally Equilibrated Fluid-Bearing Forsterite Aggregates at 800°C and 1ÂGPa: Implications for the High Electrical Conductivity Anomalies in Mantle Wedges. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB021343.	1.4	13
4	The composition of subduction zone fluids and the origin of the trace element enrichment in arc magmas. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	1.2	32
5	Trace element fractionation between biotite, allanite, and granitic melt. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	1.2	12
6	Electrical conductivity of HCl-bearing aqueous fluids to 700°C and 1ÂGPa. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	1.2	6
7	Electrical Conductivity of NaCl-Bearing Aqueous Fluids to 900°C and 5ÂGPa. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 1397-1411.	1.4	48
8	Carbon solubility in silicate melts in equilibrium with a CO-CO <sub>2</sub> gas phase and graphite. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 259, 129-143.	1.6	22
9	Nitrogen solubility in the deep mantle and the origin of Earth's primordial nitrogen budget. <i>Earth and Planetary Science Letters</i> , 2018, 488, 134-143.	1.8	41
10	The partitioning of sulfur between multicomponent aqueous fluids and felsic melts. <i>Contributions To Mineralogy and Petrology</i> , 2018, 173, 1.	1.2	16
11	The Relative Raman Scattering Cross Sections of $\text{H}_2\text{O}$ and $\text{D}_2\text{O}$ , with Implications for In Situ Studies of Isotope Fractionation. <i>ACS Earth and Space Chemistry</i> , 2018, 2, 925-934.	1.2	17
12	Electrical conductivity of NaCl-bearing aqueous fluids to 600°C and 1ÂGPa. <i>Contributions To Mineralogy and Petrology</i> , 2017, 172, 1.	1.2	72
13	Fluids and trace element transport in subduction zones. <i>American Mineralogist</i> , 2017, 102, 5-20.	0.9	66
14	Comment on "Experimentally-determined carbon isotope fractionation in and between methane-bearing melt and fluid to upper mantle temperatures and pressures" by Mysen. <i>Earth and Planetary Science Letters</i> , 2017, 479, 387-388.	1.8	2
15	The adsorption of HCl on volcanic ash. <i>Earth and Planetary Science Letters</i> , 2016, 438, 66-74.	1.8	8
16	Fluid-melt partitioning of sulfur in differentiated arc magmas and the sulfur yield of explosive volcanic eruptions. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 176, 26-43.	1.6	39
17	Nitrogen isotope fractionation during terrestrial core-mantle separation. <i>Geochemical Perspectives Letters</i> , 2016, , 138-147.	1.0	49
18	Anhydrite stability and the effect of Ca on the behavior of sulfur in felsic magmas. <i>American Mineralogist</i> , 2015, 100, 257-266.	0.9	16

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19	Monazite and xenotime solubility in granitic melts and the origin of the lanthanide tetrad effect. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	1.2	63
20	The speciation of carbon monoxide in silicate melts and glasses. <i>American Mineralogist</i> , 2015, 100, 1641-1644.	0.9	23
21	Anhydrite solubility in differentiated arc magmas. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 158, 79-102.	1.6	35
22	Nitrogen distribution between aqueous fluids and silicate melts. <i>Earth and Planetary Science Letters</i> , 2015, 411, 218-228.	1.8	48
23	Adsorption of sulfur dioxide on volcanic ashes. <i>American Mineralogist</i> , 2014, 99, 1085-1094.	0.9	17
24	Electrical conductivity measurements of aqueous fluids under pressure with a hydrothermal diamond anvil cell. <i>Review of Scientific Instruments</i> , 2014, 85, 115107.	0.6	15
25	The speciation of carbon dioxide in silicate melts. <i>Contributions To Mineralogy and Petrology</i> , 2014, 167, 1.	1.2	33
26	Nitrogen speciation in mantle and crustal fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 129, 13-32.	1.6	97
27	Nitrogen solubility in upper mantle minerals. <i>Earth and Planetary Science Letters</i> , 2013, 377-378, 311-323.	1.8	95
28	Partitioning of halogens between mantle minerals and aqueous fluids: implications for the fluid flow regime in subduction zones. <i>Contributions To Mineralogy and Petrology</i> , 2013, 165, 117-128.	1.2	62
29	Carbon in Silicate Melts. <i>Reviews in Mineralogy and Geochemistry</i> , 2013, 75, 251-287.	2.2	102
30	Zircon solubility in aqueous fluids at high temperatures and pressures. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 119, 178-187.	1.6	56
31	In-situ Raman spectroscopic study of sulfur speciation in oxidized magmatic-hydrothermal fluids. <i>American Mineralogist</i> , 2012, 97, 1348-1353.	0.9	20
32	The mobility of W and Mo in subduction zone fluids and the Mo-W-Th-U systematics of island arc magmas. <i>Earth and Planetary Science Letters</i> , 2012, 351-352, 195-207.	1.8	115
33	Partitioning of Nb and Ta between rutile and felsic melt and the fractionation of Nb/Ta during partial melting of hydrous metabasalt. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 1673-1692.	1.6	143
34	The oxidation state of sulfur in magmatic fluids. <i>Earth and Planetary Science Letters</i> , 2011, 301, 190-198.	1.8	39
35	The mobility of U and Th in subduction zone fluids: an indicator of oxygen fugacity and fluid salinity. <i>Contributions To Mineralogy and Petrology</i> , 2011, 161, 597-613.	1.2	76
36	Electrical conductivity of dry and hydrous NaAlSi <sub>3</sub> O <sub>8</sub> glasses and liquids at high pressures. <i>Contributions To Mineralogy and Petrology</i> , 2011, 162, 501-513.	1.2	44

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37	Electrical conductivity of hydrous basaltic melts: implications for partial melting in the upper mantle. <i>Contributions To Mineralogy and Petrology</i> , 2011, 162, 637-650.	1.2	173
38	The distribution of sulfur between haplogranitic melts and aqueous fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 645-660.	1.6	68
39	Experimental constraints on rutile saturation during partial melting of metabasalt at the amphibolite to eclogite transition, with applications to TTG genesis. <i>American Mineralogist</i> , 2009, 94, 1175-1186.	0.9	86
40	The origin of the negative niobium tantalum anomaly in subduction zone magmas. <i>Earth and Planetary Science Letters</i> , 2008, 267, 290-300.	1.8	133
41	Optical Absorption and Radiative Thermal Conductivity of Silicate Perovskite to 125 Gigapascals. <i>Science</i> , 2008, 322, 1529-1532.	6.0	105
42	Solubility of tin in (Cl, F)-bearing aqueous fluids at 700°C, 140MPa: A LA-ICP-MS study on synthetic fluid inclusions. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 3323-3335.	1.6	81
43	Optical absorption spectra of ferropericlase to 84 GPa. <i>American Mineralogist</i> , 2007, 92, 433-436.	0.9	68
44	Carbon solubility in mantle minerals. <i>Earth and Planetary Science Letters</i> , 2006, 245, 730-742.	1.8	160
45	Optical and near infrared spectra of ringwoodite to 21.5 GPa: Implications for radiative heat transport in the mantle. <i>American Mineralogist</i> , 2005, 90, 1209-1212.	0.9	37
46	Solubility of rutile in subduction zone fluids, as determined by experiments in the hydrothermal diamond anvil cell. <i>Earth and Planetary Science Letters</i> , 2005, 232, 393-402.	1.8	140
47	Viscosity of Fluids in Subduction Zones. <i>Science</i> , 2004, 303, 513-516.	6.0	113
48	Carbon solubility in olivine and the mode of carbon storage in the Earth's mantle. <i>Nature</i> , 2003, 424, 414-416.	13.7	173
49	Experimental evidence for high noble gas solubilities in silicate melts under mantle pressures. <i>Earth and Planetary Science Letters</i> , 2002, 195, 277-290.	1.8	55
50	Water solubility in nominally anhydrous minerals measured by FTIR and 1 H MAS NMR: the effect of sample preparation. <i>Physics and Chemistry of Minerals</i> , 2000, 27, 371-376.	0.3	58
51	Experimental Evidence for the Source of Excess Sulfur in Explosive Volcanic Eruptions. <i>Science</i> , 1999, 284, 1652-1654.	6.0	102
52	The speciation of Ni and Co in silicate melts from optical absorption spectra to 1500°C. <i>Chemical Geology</i> , 1999, 158, 105-115.	1.4	51
53	Complete miscibility between silicate melts and hydrous fluids in the upper mantle: experimental evidence and geochemical implications. <i>Earth and Planetary Science Letters</i> , 1999, 165, 187-196.	1.8	325
54	Direct observation of complete miscibility in the albite-H <sub>2</sub> O system. <i>Nature</i> , 1997, 385, 710-712.	13.7	201

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55	Columbite solubility in granitic melts: consequences for the enrichment and fractionation of Nb and Ta in the Earth's crust. Contributions To Mineralogy and Petrology, 1997, 128, 213-227.	1.2	324
56	Solubility of water in the $\hat{1}$ , $\hat{1}^2$ and $\hat{1}^3$ phases of $(\text{Mg,Fe})_2\text{SiO}_4$ . Contributions To Mineralogy and Petrology, 1996, 123, 345-357.	1.2	861
57	Constraints from partitioning experiments on the composition of subduction-zone fluids. Nature, 1996, 380, 237-240.	13.7	683
58	Infrared spectroscopy of hydrous silicate melts to 1000 degrees C and 10 kbar; direct observation of $\text{H}_2\text{O}$ speciation in a diamond-anvil cell. American Mineralogist, 1995, 80, 1335-1338.	0.9	158
59	Compositional re-equilibration of fluid inclusions in quartz. Contributions To Mineralogy and Petrology, 1995, 119, 1-15.	1.2	59
60	Distribution of chloride between aqueous fluids and felsic melts at 2 kbar and 800°C. European Journal of Mineralogy, 1994, 6, 913-924.	0.4	52
61	Influence of fluorine on the enrichment of high field strength trace elements in granitic rocks. Contributions To Mineralogy and Petrology, 1993, 114, 479-488.	1.2	310
62	Fluorine in silicate glasses: A multinuclear nuclear magnetic resonance study. Geochimica Et Cosmochimica Acta, 1992, 56, 701-707.	1.6	144
63	Partitioning of Cu, Sn, Mo, W, U, and Th between melt and aqueous fluid in the systems haplogranite-H <sub>2</sub> O/HCl and haplogranite-H <sub>2</sub> O/HF. Contributions To Mineralogy and Petrology, 1991, 109, 139-150.	1.2	360
64	Role of fluids in transport and fractionation of uranium and thorium in magmatic processes. Nature, 1990, 348, 531-533.	13.7	200
65	The influence of the fluid phase composition on the solidus temperatures in the haplogranite system NaAlSi <sub>3</sub> O <sub>8</sub> -KAlSi <sub>3</sub> O <sub>8</sub> -SiO <sub>2</sub> -H <sub>2</sub> O-CO <sub>2</sub> . Contributions To Mineralogy and Petrology, 1989, 102, 321-327.	1.2	45