

Roger Powell

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

74
papers

17,306
citations

48
h-index

79
g-index

79
ext. papers

18,879
ext. citations

4
avg, IF

7.02
L-index

#	Paper	IF	Citations
74	Mantle-like HfNd isotope signatures in ~3.5 Ga greenstones: No evidence for Hadean crust beneath the East Pilbara Craton. <i>Chemical Geology</i> , 2021 , 576, 120273	4.2	2
73	Robust isochron calculation. <i>Geochronology</i> , 2020 , 2, 325-342	3.8	6
72	The truth and beauty of chemical potentials. <i>Journal of Metamorphic Geology</i> , 2019 , 37, 1007-1019	4.4	12
71	On equilibrium in non-hydrostatic metamorphic systems. <i>Journal of Metamorphic Geology</i> , 2018 , 36, 419-438	4.4	21
70	Melting of Peridotites through to Granites: A Simple Thermodynamic Model in the System KNCFMASHTOCr. <i>Journal of Petrology</i> , 2018 , 59, 881-900	3.9	64
69	The effect of subduction on the sulphur, carbon and redox budget of lithospheric mantle. <i>Journal of Metamorphic Geology</i> , 2015 , 33, 649-670	4.4	35
68	Viscous relaxation of grain-scale pressure variations. <i>Journal of Metamorphic Geology</i> , 2015 , 33, 859-868	4.4	24
67	Using calculated chemical potential relationships to account for replacement of kyanite by symplectite in high pressure granulites. <i>Journal of Metamorphic Geology</i> , 2015 , 33, 311-330	4.4	35
66	On parameterizing thermodynamic descriptions of minerals for petrological calculations. <i>Journal of Metamorphic Geology</i> , 2014 , 32, 245-260	4.4	47
65	A new thermodynamic model for sapphirine: calculated phase equilibria in $K_2O-FeO-MgO-Al_2O_3-Bi_2O_3-H_2O-TiO_2-Fe_2O_3$. <i>Journal of Metamorphic Geology</i> , 2014 , 32, 287-299	4.4	50
64	Intermediate granulite produced by transformation of eclogite at a felsic granulite contact, in Blanský les, Bohemian Massif. <i>Journal of Metamorphic Geology</i> , 2014 , 32, 347-370	4.4	13
63	New mineral activity-composition relations for thermodynamic calculations in metapelitic systems. <i>Journal of Metamorphic Geology</i> , 2014 , 32, 261-286	4.4	525
62	Grain-scale pressure variations and chemical equilibrium in high-grade metamorphic rocks. <i>Journal of Metamorphic Geology</i> , 2014 , 32, 195-207	4.4	59
61	The effect of Mn on mineral stability in metapelites revisited: new activity relations for manganese-bearing minerals. <i>Journal of Metamorphic Geology</i> , 2014 , 32, 809-828	4.4	236
60	Using equilibrium thermodynamics in the study of metasomatic alteration, illustrated by an application to serpentinites. <i>Lithos</i> , 2013 , 168-169, 67-84	2.9	48
59	Garnet and spinel lherzolite assemblages in $MgO-Al_2O_3-Bi_2O_3$ and $CaO-MgO-Al_2O_3-Bi_2O_3$: thermodynamic models and an experimental conflict. <i>Journal of Metamorphic Geology</i> , 2012 , 30, 561-577	4.4	24
58	Revised activity-composition models for clinopyroxene and amphibole. <i>Journal of Metamorphic Geology</i> , 2012 , 30, 131-142	4.4	193

57	On the interpretation of retrograde reaction textures in granulite facies rocks. <i>Journal of Metamorphic Geology</i> , 2011 , 29, 131-149	4.4	62
56	Progress in linking accessory mineral growth and breakdown to major mineral evolution in metamorphic rocks: a thermodynamic approach in the Na ₂ O-CaO-K ₂ O-FeO-MgO-Al ₂ O ₃ -SiO ₂ -H ₂ O-TiO ₂ -ZrO ₂ system. <i>Journal of Metamorphic Geology</i> , 2011 , 29, 151-166	4.4	151
55	An improved and extended internally consistent thermodynamic dataset for phases of petrological interest, involving a new equation of state for solids. <i>Journal of Metamorphic Geology</i> , 2011 , 29, 333-383	4.4	1103
54	Using calculated chemical potential relationships to account for coronas around kyanite: an example from the Bohemian Massif. <i>Journal of Metamorphic Geology</i> , 2010 , 28, 97-116	4.4	44
53	Retrograde melt-residue interaction and the formation of near-anhydrous leucosomes in migmatites. <i>Journal of Metamorphic Geology</i> , 2010 , 28, 579-597	4.4	96
52	The stability of sapphirine + quartz: calculated phase equilibria in FeO-MgO-Al ₂ O ₃ -SiO ₂ -TiO ₂ . <i>Journal of Metamorphic Geology</i> , 2010 , 28, 615-633	4.4	48
51	Did the Delamerian Orogeny Start in the Neoproterozoic?. <i>Journal of Geology</i> , 2009 , 117, 575-583	2	29
50	On thermobarometry. <i>Journal of Metamorphic Geology</i> , 2008 , 26, 155-179	4.4	362
49	Calculated phase equilibria involving chemical potentials to investigate the textural evolution of metamorphic rocks. <i>Journal of Metamorphic Geology</i> , 2008 , 26, 181-198	4.4	86
48	Ultrahigh-pressure garnet peridotites from the devolatilization of sea-floor hydrated ultramafic rocks. <i>Journal of Metamorphic Geology</i> , 2008 , 26, 695-716	4.4	63
47	An order-disorder model for omphacitic pyroxenes in the system jadeite-diopside-hedenbergite-acmite, with applications to eclogitic rocks. <i>American Mineralogist</i> , 2007 , 92, 1181-1189	2.9	409
46	Progress relating to calculation of partial melting equilibria for metapelites. <i>Journal of Metamorphic Geology</i> , 2007 , 25, 511-527	4.4	814
45	A new thermodynamic model for clino- and orthoamphiboles in the system Na ₂ O-K ₂ O-FeO-MgO-Al ₂ O ₃ -SiO ₂ -H ₂ O. <i>Journal of Metamorphic Geology</i> , 2007 , 25, 631-656	4.4	386
44	Palaeozoic Intraplate Crustal Anatexis in the Mount Painter Province, South Australia: Timing, Thermal Budgets and the Role of Crustal Heat Production. <i>Journal of Petrology</i> , 2006 , 47, 2281-2302	3.9	48
43	A method for activity calculations in saline and mixed solvent solutions at elevated temperature and pressure: A framework for geological phase equilibria calculations. <i>Geochimica Et Cosmochimica Acta</i> , 2006 , 70, 5488-5506	5.5	19
42	TRUTH AND BEAUTY IN METAMORPHIC PHASE-EQUILIBRIA: CONJUGATE VARIABLES AND PHASE DIAGRAMS. <i>Canadian Mineralogist</i> , 2005 , 43, 21-33	0.7	100
41	Spatially-focussed melt formation in aluminous metapelites from Broken Hill, Australia. <i>Journal of Metamorphic Geology</i> , 2005 , 22, 825-845	4.4	196
40	A thermodynamic model for Ca-Na clinoamphiboles in Na ₂ O-K ₂ O-FeO-MgO-Al ₂ O ₃ -SiO ₂ -H ₂ O for petrological calculations. <i>Journal of Metamorphic Geology</i> , 2005 , 23, 771-791	4.4	228

39	How well known are the thermodynamics of Fe-Mg-Ta garnet? Evidence from experimentally determined exchange equilibria. <i>Journal of Metamorphic Geology</i> , 2004 , 14, 75-84	4.4	10
38	An internally consistent thermodynamic data set for phases of petrological interest. <i>Journal of Metamorphic Geology</i> , 2004 , 16, 309-343	4.4	3233
37	Phase relations in high-pressure metapelites in the system KFMASH (K ₂ O-FeO-MgO-Al ₂ O ₃ -SiO ₂ -H ₂ O) with application to natural rocks. <i>Contributions To Mineralogy and Petrology</i> , 2003 , 145, 301-315	3.5	115
36	Activity-composition relations for phases in petrological calculations: an asymmetric multicomponent formulation. <i>Contributions To Mineralogy and Petrology</i> , 2003 , 145, 492-501	3.5	857
35	(Th+U)-Pb monazite ages from Al-Mg-rich metapelites, Rauer Group, east Antarctica. <i>Contributions To Mineralogy and Petrology</i> , 2003 , 146, 326-340	3.5	67
34	Melt loss and the preservation of granulite facies mineral assemblages. <i>Journal of Metamorphic Geology</i> , 2002 , 20, 621-632	4.4	265
33	Improving isochron calculations with robust statistics and the bootstrap. <i>Chemical Geology</i> , 2002 , 185, 191-204	4.2	61
32	H ₂ O in metamorphism and unexpected behaviour in the preservation of metamorphic mineral assemblages. <i>Journal of Metamorphic Geology</i> , 2001 , 19, 445-454	4.4	193
31	Relating formulations of the thermodynamics of mineral solid solutions; activity modeling of pyroxenes, amphiboles, and micas. <i>American Mineralogist</i> , 1999 , 84, 1-14	2.9	369
30	Calculating phase diagrams involving solid solutions via non-linear equations, with examples using THERMOCALC. <i>Journal of Metamorphic Geology</i> , 1998 , 16, 577-588	4.4	714
29	Mixing properties and activity-composition relationships of chlorites in the system MgO-FeO-Al ₂ O ₃ -SiO ₂ -H ₂ O. <i>European Journal of Mineralogy</i> , 1998 , 10, 395-406	2.2	514
28	The effect of Mn on mineral stability in metapelites. <i>Journal of Metamorphic Geology</i> , 1997 , 15, 223-238	4.4	242
27	Thermodynamics of order-disorder in minerals; II, Symmetric formalism applied to solid solutions. <i>American Mineralogist</i> , 1996 , 81, 1425-1437	2.9	314
26	Thermodynamics of order-disorder in minerals; I, Symmetric formalism applied to minerals of fixed composition. <i>American Mineralogist</i> , 1996 , 81, 1413-1424	2.9	57
25	Hydration of orthopyroxene-ordierite-bearing assemblages at Laouni, Central Hoggar, Algeria. <i>Journal of Metamorphic Geology</i> , 1996 , 14, 467-476	4.4	25
24	Metapelitic granulites from Jetty Peninsula, east Antarctica: formation during a single event or by polymetamorphism?. <i>Journal of Metamorphic Geology</i> , 1994 , 12, 557-573	4.4	45
23	Metamorphism in Archaean greenstone belts: calculated fluid compositions and implications for gold mineralization. <i>Journal of Metamorphic Geology</i> , 1991 , 9, 141-150	4.4	148
22	Proterozoic granulite facies metamorphism in the southeastern Reynolds Range, central Australia: geological context, P-T path and overprinting relationships. <i>Journal of Metamorphic Geology</i> , 1991 , 9, 267-281	4.4	38

21	Some remarks on high-temperature/low-pressure metamorphism in convergent orogens. <i>Journal of Metamorphic Geology</i> , 1991 , 9, 333-340	4.4	131
20	Decompressional coronas and symplectites in granulites of the Musgrave Complex, central Australia. <i>Journal of Metamorphic Geology</i> , 1991 , 9, 441-450	4.4	61
19	The P-T deformation path for a mid-Proterozoic, low-pressure terrane: the Reynolds Range, central Australia. <i>Journal of Metamorphic Geology</i> , 1991 , 9, 641-661	4.4	47
18	An enlarged and updated internally consistent thermodynamic dataset with uncertainties and correlations: the system $K_2O-Na_2O-CaO-MgO-MnO-FeO-Fe_2O_3-Al_2O_3-TiO_2-SiO_2-H_2O$. <i>Journal of Metamorphic Geology</i> , 1990 , 8, 89-124	4.4	911
17	Matrix analysis of metamorphic mineral assemblages and reactions: alternatives and extensions. <i>Contributions To Mineralogy and Petrology</i> , 1990 , 106, 61-65	3.5	1
16	A calculated petrogenetic grid for ultramafic rocks in the system $CaO-FeO-MgO-Al_2O_3-SiO_2-CO_2-H_2O$ at low pressures. <i>Contributions To Mineralogy and Petrology</i> , 1990 , 105, 347-358	3.5	37
15	Calculated mineral equilibria in the greenschist-blueschist-eclogite facies in $Na_2O-FeO-MgO-Al_2O_3-SiO_2-H_2O$. <i>Contributions To Mineralogy and Petrology</i> , 1990 , 104, 85-98	3.5	71
14	Garnet porphyroblast-bearing leucosomes in metapelites: mechanisms, phase diagrams, and an example from Broken Hill, Australia 1990 , 105-123		61
13	Low-pressure granulite facies metapelitic assemblages and corona textures from MacRobertson Land, east Antarctica: the importance of Fe_2O_3 and TiO_2 in accounting for spinel-bearing assemblages. <i>Journal of Metamorphic Geology</i> , 1989 , 7, 323-335	4.4	82
12	An internally consistent dataset with uncertainties and correlations: 3. Applications to geobarometry, worked examples and a computer program. <i>Journal of Metamorphic Geology</i> , 1988 , 6, 173-204	4.4	1239
11	Thermal and baric evolution of garnet granulites from Sri Lanka. <i>Journal of Metamorphic Geology</i> , 1988 , 6, 351-364	4.4	54
10	Corona textures between kyanite, garnet and gedrite in gneisses from Errabiddy, Western Australia. <i>Journal of Metamorphic Geology</i> , 1987 , 5, 357-370	4.4	15
9	Metamorphic evolution of aluminous granulites from Labwor Hills, Uganda. <i>Contributions To Mineralogy and Petrology</i> , 1987 , 95, 217-225	3.5	69
8	Evidence for a Variscan suture zone in the Vendée, France: a petrological study of blueschist facies rocks from Bois de Cenon. <i>Journal of Metamorphic Geology</i> , 1987 , 5, 225-237	4.4	24
7	Metamorphism in the Olary Block, South Australia: compression with cooling in a Proterozoic fold belt. <i>Journal of Metamorphic Geology</i> , 1987 , 5, 291-306	4.4	86
6	Regression diagnostics and robust regression in geothermometer/geobarometer calibration: the garnet-clinopyroxene geothermometer revisited. <i>Journal of Metamorphic Geology</i> , 1985 , 3, 231-243	4.4	498
5	An internally consistent thermodynamic dataset with uncertainties and correlations: 1. Methods and a worked example. <i>Journal of Metamorphic Geology</i> , 1985 , 3, 327-342	4.4	178
4	An internally consistent thermodynamic dataset with uncertainties and correlations: 2. Data and results. <i>Journal of Metamorphic Geology</i> , 1985 , 3, 343-370	4.4	166

- 3 A garnet-hornblende geothermometer: calibration, testing, and application to the Pelona Schist, Southern California. *Journal of Metamorphic Geology*, **1984**, 2, 13-31 4-4 583
- 2 Calcite-dolomite geothermometry in the system $\text{CaCO}_3\text{-MgCO}_3\text{-FeCO}_3$: an experimental study. *Journal of Metamorphic Geology*, **1984**, 2, 33-41 4-4 81
- 1 Thermodynamics of Complex Phases **1983**, 241-266 3