

Klaus Regenauer-Lieb

List of Publications by Year in descending order

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218
papers

5,571
citations

76294

40
h-index

114418

63
g-index

240
all docs

240
docs citations

240
times ranked

3835
citing authors

#	ARTICLE	IF	CITATIONS
1	The Initiation of Subduction: Criticality by Addition of Water?. <i>Science</i> , 2001, 294, 578-580.	6.0	348
2	Creep cavitation can establish a dynamic granular fluid pump in ductile shear zones. <i>Nature</i> , 2009, 459, 974-977.	13.7	204
3	Uncertainties have a meaning: Information entropy as a quality measure for 3-D geological models. <i>Tectonophysics</i> , 2012, 526-529, 207-216.	0.9	196
4	Towards incorporating uncertainty of structural data in 3D geological inversion. <i>Tectonophysics</i> , 2010, 490, 141-151.	0.9	169
5	Modeling shear zones in geological and planetary sciences: solid- and fluid-thermal-mechanical approaches. <i>Earth-Science Reviews</i> , 2003, 63, 295-349.	4.0	156
6	Dynamics of retreating slabs: 2. Insights from three-dimensional laboratory experiments. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	148
7	The effect of energy feedbacks on continental strength. <i>Nature</i> , 2006, 442, 67-70.	13.7	133
8	Curvature of oceanic arcs. <i>Geology</i> , 2006, 34, 877.	2.0	117
9	The role of water in connecting past and future episodes of subduction. <i>Earth and Planetary Science Letters</i> , 2008, 273, 15-27.	1.8	103
10	Positive feedback of interacting ductile faults from coupling of equation of state, rheology and thermal-mechanics. <i>Physics of the Earth and Planetary Interiors</i> , 2004, 142, 113-135.	0.7	77
11	Application of percolation theory to microtomography of structured media: Percolation threshold, critical exponents, and upscaling. <i>Physical Review E</i> , 2011, 83, 016106.	0.8	74
12	Rapid conversion of elastic energy into plastic shear heating during incipient necking of the lithosphere. <i>Geophysical Research Letters</i> , 1998, 25, 2737-2740.	1.5	72
13	Heat generation associated with collision of two plates: the Himalayan geothermal belt. <i>Journal of Volcanology and Geothermal Research</i> , 1998, 83, 75-92.	0.8	70
14	Low grade heat driven multi-effect distillation technology. <i>International Journal of Heat and Mass Transfer</i> , 2011, 54, 5497-5503.	2.5	66
15	Dilatant plasticity applied to Alpine collision: ductile void growth in the intraplate area beneath the Eifel volcanic field. <i>Journal of Geodynamics</i> , 1998, 27, 1-21.	0.7	61
16	Dynamics of retreating slabs: 1. Insights from two-dimensional numerical experiments. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	61
17	Ductile fractures and magma migration from source. <i>Geology</i> , 2010, 38, 363-366.	2.0	59
18	The thermodynamics of deformed metamorphic rocks: A review. <i>Journal of Structural Geology</i> , 2011, 33, 758-818.	1.0	59

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19	A novel process for low grade heat driven desalination. <i>Desalination</i> , 2014, 351, 202-212.	4.0	58
20	Multiscale Brittle-Ductile Coupling and Genesis of Slow Earthquakes. <i>Pure and Applied Geophysics</i> , 2008, 165, 523-543.	0.8	54
21	Toward enhanced subsurface intervention methods using chaotic advection. <i>Journal of Contaminant Hydrology</i> , 2012, 127, 15-29.	1.6	54
22	Some fundamental issues in computational hydrodynamics of mineralization: A review. <i>Journal of Geochemical Exploration</i> , 2012, 112, 21-34.	1.5	51
23	Strain localisation and weakening of the lithosphere during extension. <i>Tectonophysics</i> , 2008, 458, 96-104.	0.9	50
24	Techno-economic analysis of geothermal desalination using Hot Sedimentary Aquifers: A pre-feasibility study for Western Australia. <i>Desalination</i> , 2017, 404, 167-181.	4.0	50
25	Continental extension: From core complexes to rigid block faulting. <i>Geology</i> , 2005, 33, 609.	2.0	49
26	Mantle detachment faults and the breakup of cold continental lithosphere. <i>Geology</i> , 2007, 35, 1035.	2.0	49
27	Folding with thermalâ€œmechanical feedback. <i>Journal of Structural Geology</i> , 2008, 30, 1572-1592.	1.0	49
28	Continuum damage mechanics for the lithosphere. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	49
29	Pore formation during dehydration of a polycrystalline gypsum sample observed and quantified in a time-series synchrotron X-ray micro-tomography experiment. <i>Solid Earth</i> , 2012, 3, 71-86.	1.2	49
30	From characterisation of pore-structures to simulations of pore-scale fluid flow and the upscaling of permeability using microtomography: A case study of heterogeneous carbonates. <i>Journal of Geochemical Exploration</i> , 2014, 144, 84-96.	1.5	47
31	Computational challenges in the analyses of petrophysics using microtomography and upscaling: A review. <i>Computers and Geosciences</i> , 2016, 89, 107-117.	2.0	47
32	The geodynamics of lithospheric extension. <i>Tectonophysics</i> , 2008, 458, 1-8.	0.9	46
33	Thermoâ€œporoâ€œmechanics of chemically active creeping faults: 3. The role of serpentinite in episodic tremor and slip sequences, and transition to chaos. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 4606-4625.	1.4	46
34	Geochemistry and heat transfer processes in Quaternary rhyolitic systems of The Taupo Volcanic Zone, New Zealand. <i>Tectonophysics</i> , 1993, 223, 213-235.	0.9	45
35	Cnoidal waves in solids. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 78, 231-248.	2.3	45
36	A model comparison study of large-scale mantleâ€œlithosphere dynamics driven by subduction. <i>Physics of the Earth and Planetary Interiors</i> , 2008, 171, 224-234.	0.7	43

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37	Thermodynamic optimisation of multi effect distillation driven by sensible heat sources. <i>Desalination</i> , 2014, 336, 160-167.	4.0	43
38	Modeling episodic fluid release events in the ductile carbonates of the Glarus thrust. <i>Geophysical Research Letters</i> , 2014, 41, 7121-7128.	1.5	43
39	Application of geothermal absorption air-conditioning system: A case study. <i>Applied Thermal Engineering</i> , 2013, 50, 71-80.	3.0	42
40	Multiscale coupling and multiphysics approaches in earth sciences: Theory. <i>Journal of Coupled Systems and Multiscale Dynamics</i> , 2013, 1, 49-73.	0.2	42
41	Thermo-economic analysis of two novel low grade sensible heat driven desalination processes. <i>Desalination</i> , 2015, 365, 316-328.	4.0	42
42	Towards a self-consistent plate mantle model that includes elasticity: simple benchmarks and application to basic modes of convection. <i>Geophysical Journal International</i> , 2005, 163, 788-800.	1.0	40
43	Thermal hydraulic mechanical chemical coupling with damage mechanics using ESCRIPTRT and ABAQUS. <i>Tectonophysics</i> , 2012, 526-529, 124-132.	0.9	39
44	Computational simulation for the morphological evolution of nonaqueous phase liquid dissolution fronts in two-dimensional fluid-saturated porous media. <i>Computational Geosciences</i> , 2011, 15, 167-183.	1.2	38
45	Determining the origin, circulation path and residence time of geothermal groundwater using multiple isotopic techniques in the Heyuan Fault Zone of Southern China. <i>Journal of Hydrology</i> , 2018, 567, 339-350.	2.3	38
46	Cutting of the European continental lithosphere: Plasticity theory applied to the present Alpine collision. <i>Journal of Geophysical Research</i> , 1997, 102, 7731-7746.	3.3	37
47	Compaction-driven melt segregation in migmatites. <i>Geology</i> , 2015, 43, 471-474.	2.0	37
48	A coupled solid fluid method for modelling subduction. <i>Philosophical Magazine</i> , 2006, 86, 3307-3323.	0.7	35
49	Boosted Multi-Effect Distillation for sensible low-grade heat sources: A comparison with feed pre-heating Multi-Effect Distillation. <i>Desalination</i> , 2015, 366, 32-46.	4.0	35
50	A damaged visco-plasticity model for pressure and temperature sensitive geomaterials. <i>International Journal of Engineering Science</i> , 2011, 49, 1141-1150.	2.7	34
51	Multiscale coupling and multiphysics approaches in earth sciences: Applications. <i>Journal of Coupled Systems and Multiscale Dynamics</i> , 2013, 1, 281-323.	0.2	34
52	Numerical modeling of toxic nonaqueous phase liquid removal from contaminated groundwater systems: mesh effect and discretization error estimation. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2015, 39, 571-593.	1.7	33
53	Python scripting libraries for subsurface fluid and heat flow simulations with TOUGH2 and SHEMAT. <i>Computers and Geosciences</i> , 2012, 43, 197-206.	2.0	32
54	Predicting isosteric heats for gas adsorption. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 473-482.	1.3	32

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55	Water solubility and diffusivity in olivine: its role in planetary tectonics. <i>Mineralogical Magazine</i> , 2003, 67, 697-715.	0.6	31
56	A porosity-gradient replacement approach for computational simulation of chemical-dissolution front propagation in fluid-saturated porous media including pore-fluid compressibility. <i>Computational Geosciences</i> , 2012, 16, 735-755.	1.2	31
57	Computational modeling of moving interfaces between fluid and porous medium domains. <i>Computational Geosciences</i> , 2013, 17, 151-166.	1.2	31
58	A hybrid immersed boundary-lattice Boltzmann/finite difference method for coupled dynamics of fluid flow, advection, diffusion and adsorption in fractured and porous media. <i>Computers and Geosciences</i> , 2019, 128, 70-78.	2.0	31
59	Poromechanics of saturated media based on the logarithmic finite strain. <i>Mechanics of Materials</i> , 2012, 51, 118-136.	1.7	30
60	Free vibration analysis of a cracked shear deformable beam on a two-parameter elastic foundation using a lattice spring model. <i>Journal of Sound and Vibration</i> , 2014, 333, 2359-2377.	2.1	30
61	Thermodynamics of folding in the middle to lower crust. <i>Geology</i> , 2007, 35, 175.	2.0	29
62	Landslides, Ice Quakes, Earthquakes: A Thermodynamic Approach to Surface Instabilities. <i>Pure and Applied Geophysics</i> , 2009, 166, 1885-1908.	0.8	29
63	Anisotropic damage mechanics as a novel approach to improve pre- and post-failure borehole stability analysis. <i>Geophysical Journal International</i> , 2013, 193, 1095-1109.	1.0	29
64	Frictional behaviour of sandstone: A sample-size dependent triaxial investigation. <i>Journal of Structural Geology</i> , 2017, 94, 154-165.	1.0	29
65	Hierarchical creep cavity formation in an ultramylonite and implications for phase mixing. <i>Solid Earth</i> , 2017, 8, 1193-1209.	1.2	29
66	On Representative Elementary Volumes of Grayscale Micro-CT Images of Porous Media. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088594.	1.5	28
67	On the interpretation of contact angle for geomaterial wettability: Contact area versus three-phase contact line. <i>Journal of Petroleum Science and Engineering</i> , 2020, 195, 107579.	2.1	28
68	Improved estimates of percolation and anisotropic permeability from X-ray microtomography using stochastic analyses and visualization. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	1.0	27
69	Interaction between mantle and crustal detachments: A nonlinear system controlling lithospheric extension. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	27
70	Review of extremum postulates. <i>Current Opinion in Chemical Engineering</i> , 2015, 7, 40-46.	3.8	27
71	Total Porosity of Tight Rocks: A Welcome to the Heat Transfer Technique. <i>Energy & Fuels</i> , 2016, 30, 10072-10079.	2.5	27
72	A Framework for Fracture Network Formation in Overpressurised Impermeable Shale: Deformability Versus Diagenesis. <i>Rock Mechanics and Rock Engineering</i> , 2017, 50, 689-703.	2.6	27

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73	Shear band emergence in granular materials—a numerical study. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2007, 31, 373-393.	1.7	26
74	A partially open porous media flow with chaotic advection: towards a model of coupled fields. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 217-230.	1.6	25
75	Ductile compaction of partially molten rocks: the effect of non-linear viscous rheology on instability and segregation. <i>Geophysical Journal International</i> , 2014, 200, 519-523.	1.0	25
76	Frame indifferent elastoplasticity of frictional materials at finite strain. <i>International Journal of Solids and Structures</i> , 2011, 48, 397-407.	1.3	24
77	A multi-scaling approach to predict hydraulic damage of poromaterials. <i>International Journal of Mechanical Sciences</i> , 2014, 78, 1-7.	3.6	24
78	Effects of surface roughness and derivation of scaling laws on gas transport in coal using a fractal-based lattice Boltzmann method. <i>Fuel</i> , 2020, 259, 116229.	3.4	24
79	Fast mechanisms for the formation of new plate boundaries. <i>Tectonophysics</i> , 2000, 322, 53-67.	0.9	23
80	Time-dependent, irreversible entropy production and geodynamics. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 285-300.	1.6	23
81	Analytical and experimental investigation of pore pressure induced strain softening around boreholes. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2019, 113, 1-10.	2.6	23
82	The dynamic evolution of compaction bands in highly porous carbonates: the role of local heterogeneity for nucleation and propagation. <i>Progress in Earth and Planetary Science</i> , 2020, 7, .	1.1	23
83	Acid stimulation in carbonates: A laboratory test of a wormhole model based on Damköhler and Peclet numbers. <i>Journal of Petroleum Science and Engineering</i> , 2021, 203, 108593.	2.1	22
84	Deformation with coupled chemical diffusion. <i>Physics of the Earth and Planetary Interiors</i> , 2009, 172, 43-54.	0.7	21
85	An experimental and theoretical study of the mixing characteristics of a periodically reoriented irrotational flow. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 2147-2162.	1.6	21
86	Digital bread crumb: Creation and application. <i>Journal of Food Engineering</i> , 2013, 116, 852-861.	2.7	21
87	From transient to steady state deformation and grain size: A thermodynamic approach using elasto-visco-plastic numerical modeling. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 900-918.	1.4	21
88	Weak zone formation for initiating subduction from thermo-mechanical feedback of low-temperature plasticity. <i>Earth and Planetary Science Letters</i> , 2001, 190, 237-250.	1.8	20
89	Boudinage as a material instability of elasto-visco-plastic rocks. <i>Journal of Structural Geology</i> , 2015, 78, 86-102.	1.0	20
90	Rock Characterization Using Gray-Level Co-Occurrence Matrix: An Objective Perspective of Digital Rock Statistics. <i>Water Resources Research</i> , 2019, 55, 1912-1927.	1.7	20

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91	Cross-diffusion waves in hydro-poro-mechanics. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 135, 103632.	2.3	20
92	Grain boundaries: a possible water reservoir in the Earth's mantle?. <i>Mineralogy and Petrology</i> , 2008, 94, 1-8.	0.4	19
93	Application of the Boosted MED process for low-grade heat sources – A pilot plant. <i>Desalination</i> , 2015, 366, 47-58.	4.0	19
94	Limit analysis for the seismic stability of three-dimensional rock slopes using the generalized Hoek-Brown criterion. <i>International Journal of Mining Science and Technology</i> , 2022, 32, 237-245.	4.6	19
95	Quasi-adiabatic instabilities associated with necking processes of an elasto-viscoplastic lithosphere. <i>Physics of the Earth and Planetary Interiors</i> , 2000, 118, 89-102.	0.7	18
96	Quartz Rheology and Short-time-scale Crustal Instabilities. <i>Pure and Applied Geophysics</i> , 2006, 163, 1915-1932.	0.8	18
97	A unified multi-scale thermodynamical framework for coupling geomechanical and chemical simulations. <i>Tectonophysics</i> , 2010, 483, 178-189.	0.9	18
98	Conductivity response to intraplate deformation: Evidence for metamorphic devolatilization and crustal-scale fluid focusing. <i>Geophysical Research Letters</i> , 2016, 43, 11,236.	1.5	18
99	Modeling the effects of gas slippage, cleat network topology and scale dependence of gas transport in coal seam gas reservoirs. <i>Fuel</i> , 2020, 264, 116715.	3.4	18
100	Pore accessibility and trapping of methane in Marcellus Shale. <i>International Journal of Coal Geology</i> , 2021, 248, 103850.	1.9	18
101	Water and Geodynamics. <i>Reviews in Mineralogy and Geochemistry</i> , 2006, 62, 451-473.	2.2	17
102	From point defects to plate tectonic faults. <i>Philosophical Magazine</i> , 2006, 86, 3373-3392.	0.7	17
103	Permeability measurements during triaxial and direct shear loading using a novel X-ray transparent apparatus: Fractured shale examples from Beetaloo basin, Australia. <i>NDT and E International</i> , 2019, 107, 102129.	1.7	17
104	Application of percolation theory to microtomography of rocks. <i>Earth-Science Reviews</i> , 2021, 214, 103519.	4.0	17
105	Fluid reservoirs in the crust and mechanical coupling between the upper and lower crust. <i>Earth, Planets and Space</i> , 2004, 56, 1151-1161.	0.9	16
106	Thermal-elastic stresses and the criticality of the continental crust. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	1.0	16
107	Conditions for the localisation of plastic deformation in temperature sensitive viscoplastic materials. <i>Journal of Mechanics of Materials and Structures</i> , 2016, 11, 113-136.	0.4	16
108	2-D finite displacements and strain from particle imaging velocimetry (PIV) analysis of tectonic analogue models with TecPIV. <i>Solid Earth</i> , 2019, 10, 1123-1139.	1.2	16

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109	Predicting the Integral Heat of Adsorption for Gas Physisorption on Microporous and Mesoporous Adsorbents. <i>Journal of Physical Chemistry C</i> , 2014, 118, 8350-8358.	1.5	15
110	Low-grade waste heat driven desalination technology. <i>International Journal for Simulation and Multidisciplinary Design Optimization</i> , 2014, 5, A02.	0.6	15
111	Melt instabilities in an intraplate lithosphere and implications for volcanism in the Harrat Ash-Shaam volcanic field (NW Arabia). <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 1543-1558.	1.4	15
112	New Generation of Hoek Cells. <i>Geotechnical Testing Journal</i> , 2019, 42, 20170110.	0.5	15
113	The role of elastic stored energy in controlling the long term rheological behaviour of the lithosphere. <i>Journal of Geodynamics</i> , 2012, 55, 66-75.	0.7	14
114	A novel flash boosted evaporation process for alumina refineries. <i>Applied Thermal Engineering</i> , 2016, 94, 375-384.	3.0	14
115	Non-linear modal analysis of structural components subjected to unilateral constraints. <i>Journal of Sound and Vibration</i> , 2017, 389, 380-410.	2.1	14
116	Folding with thermal-mechanical feedback: A reply. <i>Journal of Structural Geology</i> , 2009, 31, 752-755.	1.0	13
117	Deep geothermal: The "Moon Landing" mission in the unconventional energy and minerals space. <i>Journal of Earth Science (Wuhan, China)</i> , 2015, 26, 2-10.	1.1	13
118	Thermomechanics for Geological, Civil Engineering and Geodynamic Applications: Rate-Dependent Critical State Line Models. <i>Rock Mechanics and Rock Engineering</i> , 2021, 54, 5355-5373.	2.6	13
119	Fast ductile failure of passive margins from sediment loading. <i>Geophysical Research Letters</i> , 2000, 27, 1989-1992.	1.5	12
120	Replacement of annular domain with trapezoidal domain in computational modeling of nonaqueous-phase-liquid dissolution-front propagation problems. <i>Journal of Central South University</i> , 2015, 22, 1841-1846.	1.2	12
121	Groundwater cooling of a supercomputer in Perth, Western Australia: hydrogeological simulations and thermal sustainability. <i>Hydrogeology Journal</i> , 2015, 23, 1831-1849.	0.9	12
122	Cross-diffusion waves resulting from multiscale, multi-physics instabilities: theory. <i>Solid Earth</i> , 2021, 12, 869-883.	1.2	12
123	On the thermodynamics of listric faults. <i>Earth, Planets and Space</i> , 2004, 56, 1111-1120.	0.9	11
124	A parallel computing tool for large-scale simulation of massive fluid injection in thermo-poro-mechanical systems. <i>Philosophical Magazine</i> , 2015, 95, 3078-3102.	0.7	11
125	Non-linear analysis of beam-like structures on unilateral foundations: A lattice spring model. <i>International Journal of Solids and Structures</i> , 2016, 88-89, 192-214.	1.3	11
126	Dynamic response of cracked Timoshenko beams on elastic foundations under moving harmonic loads. <i>JVC/Journal of Vibration and Control</i> , 2017, 23, 432-457.	1.5	11

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127	The Role of Temperature in Shear Instability and Bifurcation of Internally Pressurized Deep Boreholes. <i>Rock Mechanics and Rock Engineering</i> , 2017, 50, 3003-3017.	2.6	11
128	The effects of a tectonic stress regime change on crustal-scale fluid flow at the Heyuan geothermal fault system, South China. <i>Tectonophysics</i> , 2020, 781, 228399.	0.9	11
129	An immersed boundary-lattice Boltzmann method for gaseous slip flow. <i>Physics of Fluids</i> , 2020, 32, .	1.6	11
130	Plastic velocity vector diagrams applied to indentation and transpression in the Alps. <i>Journal of Geodynamics</i> , 1996, 21, 339-353.	0.7	10
131	PreMDB, a thermodynamically consistent material database as a key to geodynamic modelling. <i>Acta Geotechnica</i> , 2009, 4, 107-115.	2.9	10
132	A limit analysis approach to derive a thermodynamic damage potential for non-linear geomaterials. <i>Philosophical Magazine</i> , 2012, 92, 3439-3450.	0.7	10
133	A novel wave-mechanics approach for fluid flow in unconventional resources. <i>The Leading Edge</i> , 2016, 35, 90-97.	0.4	10
134	Computational upscaling of Drucker-Prager plasticity from micro-CT images of synthetic porous rock. <i>Geophysical Journal International</i> , 2018, 212, 151-163.	1.0	10
135	On oscillating flows in randomly heterogeneous porous media. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 197-216.	1.6	9
136	Modelling of deformation around magmatic intrusions with application to gold-related structures in the Yilgarn Craton, Western Australia. <i>Tectonophysics</i> , 2012, 526-529, 133-146.	0.9	9
137	Deformation of pores in response to uniaxial and hydrostatic stress cycling in Marcellus Shale: Implications for gas recovery. <i>International Journal of Coal Geology</i> , 2021, 248, 103867.	1.9	9
138	Multiscale, multiphysics geomechanics for geodynamics applied to buckling instabilities in the middle of the Australian craton. <i>Philosophical Magazine</i> , 2015, 95, 3055-3077.	0.7	8
139	Boudinage and folding as an energy instability in ductile deformation. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 3996-4013.	1.4	8
140	Microstructural analyses of a giant quartz reef in south China reveal episodic brittle-ductile fluid transfer. <i>Journal of Structural Geology</i> , 2020, 130, 103911.	1.0	8
141	Asymmetric lithospheric instability facilitated by shear modulus contrast: implications for shear zones. <i>Geophysical Journal International</i> , 2012, 190, 23-36.	1.0	7
142	The Fluid Dynamics of Solid Mechanical Shear Zones. <i>Pure and Applied Geophysics</i> , 2014, 171, 3159-3174.	0.8	7
143	Rock plasticity from microtomography and upscaling. <i>Journal of Earth Science (Wuhan, China)</i> , 2015, 26, 53-59.	1.1	7
144	Distribution, microphysical properties, and tectonic controls of deformation bands in the Miocene subduction wedge (Whakataki Formation) of the Hikurangi subduction zone. <i>Solid Earth</i> , 2021, 12, 141-170.	1.2	7

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145	Cross-diffusion waves resulting from multiscale, multiphysics instabilities: application to earthquakes. <i>Solid Earth</i> , 2021, 12, 1829-1849.	1.2	7
146	A smeared seismicity constitutive model. <i>Earth, Planets and Space</i> , 2004, 56, 1121-1133.	0.9	6
147	Folding with thermal mechanical feedback: Another reply. <i>Journal of Structural Geology</i> , 2010, 32, 131-134.	1.0	6
148	Combined mechanical and melting damage model for geomaterials. <i>Geophysical Journal International</i> , 2014, 198, 1319-1328.	1.0	6
149	A novel experimental system for measurement of coupled multi-physics-induced surface alteration processes in geomaterials. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 166, 108211.	2.5	6
150	Fast in-situ X-ray scattering reveals stress sensitivity of gypsum dehydration kinetics. <i>Communications Materials</i> , 2021, 2, .	2.9	6
151	Micro-scale dissolution seams mobilise carbon in deep-sea limestones. <i>Communications Earth & Environment</i> , 2021, 2, .	2.6	6
152	Multiphase Fluid Flow through Fractured Porous Media Supported by Innovative Laboratory and Numerical Methods for Estimating Relative Permeability. <i>Energy & Fuels</i> , 2021, 35, 17372-17388.	2.5	6
153	Cross-scale dynamic interactions in compacting porous media as a trigger to pattern formation. <i>Geophysical Journal International</i> , 2022, 230, 1280-1291.	1.0	6
154	How to avoid multiple scattering in strongly scattering SANS and USANS samples. <i>Fuel</i> , 2022, 325, 124957.	3.4	6
155	The formation of volcanic centers at the Colorado Plateau as a result of the passage of aqueous fluid through the oceanic lithosphere and the subcontinental mantle: New implications for the planetary water cycle in the western United States. <i>Journal of Geodynamics</i> , 2012, 61, 154-171.	0.7	5
156	Automated thresholding and analysis of microCT scanned bread dough. <i>Journal of Microscopy</i> , 2014, 256, 100-110.	0.8	5
157	Coupling of thermal-hydraulic-mechanical processes for geothermal reservoir modelling. <i>Journal of Earth Science (Wuhan, China)</i> , 2015, 26, 47-52.	1.1	5
158	Foreword: Toward a quantitative understanding of the frontier in geothermal energy. <i>Journal of Earth Science (Wuhan, China)</i> , 2015, 26, 1-1.	1.1	5
159	A novel low grade heat driven process to re-concentrate process liquor in alumina refineries. <i>Hydrometallurgy</i> , 2017, 170, 34-42.	1.8	5
160	Shear heating in creeping faults changes the onset of convection. <i>Geophysical Journal International</i> , 2017, 211, 270-283.	1.0	5
161	Entropic Limit Analysis Applied to Radial Cavity Expansion Problems. <i>Frontiers in Materials</i> , 2018, 5, .	1.2	5
162	Tracking Metamorphic Dehydration Reactions in Real Time with Transmission Small- and Wide-Angle Synchrotron X-ray Scattering: the Case of Gypsum Dehydration. <i>Journal of Petrology</i> , 2020, 61, .	1.1	5

#	ARTICLE	IF	CITATIONS
163	Thermomechanics for Geological, Civil Engineering and Geodynamic Applications: Numerical Implementation and Application to the Bentheim Sandstone. <i>Rock Mechanics and Rock Engineering</i> , 2021, 54, 5337-5354.	2.6	5
164	Entropic Bounds for Multi-Scale and Multi-Physics Coupling in Earth Sciences. <i>Understanding Complex Systems</i> , 2014, , 323-335.	0.3	5
165	Accessibility of Pores to Methane in New Albany Shale Samples of Varying Maturity Determined Using SANS and USANS. <i>Energies</i> , 2021, 14, 8438.	1.6	5
166	Automatic detection of particle aggregation in particle code simulations of rock deformation. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.	1.0	4
167	A Novel Technique for Dynamic Analysis of Beam-Like Structures on Tensionless Elastic Foundations Subjected to Moving Loads. <i>Advanced Materials Research</i> , 2014, 1016, 192-197.	0.3	4
168	Strain localization in ductile rocks: A comparison of natural and simulated pinch-and-swell structures. <i>Tectonophysics</i> , 2016, 680, 140-154.	0.9	4
169	Entropy production in a box: Analysis of instabilities in confined hydrothermal systems. <i>Water Resources Research</i> , 2017, 53, 7716-7739.	1.7	4
170	The dynamics of multiscale, multiphysics faults: Part I - The long-term behaviour of the lithosphere. <i>Tectonophysics</i> , 2018, 746, 648-658.	0.9	4
171	Computer vision and unsupervised machine learning for pore-scale structural analysis of fractured porous media. <i>Advances in Water Resources</i> , 2021, 147, 103801.	1.7	4
172	Applications of Microtomography to Multiscale System Dynamics: Visualisation, Characterisation and High Performance Computation. <i>Lecture Notes in Earth System Sciences</i> , 2013, , 653-674.	0.5	4
173	Analysis of Dynamics in Multiphysics Modelling of Active Faults. <i>Mathematics</i> , 2016, 4, 57.	1.1	3
174	A lattice spring model for dynamic analysis of damaged beam-type structures under moving loads. <i>European Journal of Mechanics, A/Solids</i> , 2016, 60, 196-207.	2.1	3
175	Influence of stress field anisotropy on drilling-induced tensile fracture. <i>Environmental Geotechnics</i> , 2020, 7, 373-379.	1.3	3
176	The Dynamic Evolution of Permeability in Compacting Carbonates: Phase Transition and Critical Points. <i>Transport in Porous Media</i> , 2020, 135, 687-711.	1.2	3
177	Identification, segregation, and characterization of individual cracks in three dimensions. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2021, 138, 104615.	2.6	3
178	Quasi-adiabatic shear zones in the lithosphere: numerical and experimental approaches. <i>Visual Geosciences</i> , 1999, 4, 1-14.	0.5	2
179	19. Water and Geodynamics. , 2006, , 451-474.		2
180	Geothermal Cities. <i>Preview</i> , 2011, 2011, 25-28.	0.0	2

#	ARTICLE	IF	CITATIONS
181	The dynamics of multiscale, multiphysics faults: Part II - Episodic stick-slip can turn the jelly sandwich into a crÄme brÄte. Tectonophysics, 2018, 746, 659-668.	0.9	2
182	Investigating rock micro-structure of sandstones by pattern recognition on their X-ray images. ASEG Extended Abstracts, 2019, 2019, 1-3.	0.1	2
183	Regular spacing of deformation bands in sandstone: Layer-thickness control or constitutive instability?. Journal of Structural Geology, 2021, 147, 104335.	1.0	2
184	First Steps Towards Modeling a Multi-Scale Earth System. Lecture Notes in Earth Sciences, 2009, , 1-25.	0.5	2
185	Ab initio emergent phenomena in PFC. , 2004, , 235-239.		2
186	Temperature-Induced Ductile-Brittle Transition in Porous Carbonates and Change in Compaction Band Growth Revealed by 4-D X-Ray Tomography. Rock Mechanics and Rock Engineering, 2022, 55, 1087-1110.	2.6	2
187	Acid stimulation in carbonates: Microfluidics allows accurate measurement of acidic fluid reaction rates in carbonate rocks by quantifying the produced CO2 gas. Journal of Natural Gas Science and Engineering, 2022, 99, 104444.	2.1	2
188	Comment on "Plume spreading in groundwater by stretching and folding" by D. C. Mays and R. M. Neupauer. Water Resources Research, 2013, 49, 1189-1191.	1.7	1
189	A comparative study of Maxwell viscoelasticity at large strains and rotations. Geophysical Journal International, 2017, 211, 252-262.	1.0	1
190	Investigation of effects of surface roughness on coal seam gas transport using a fractal-based lattice Boltzmann method. ASEG Extended Abstracts, 2019, 2019, 1-2.	0.1	1
191	The mineral factory: how to build a giant quartz reef. ASEG Extended Abstracts, 2019, 2019, 1-4.	0.1	1
192	A Hylogger-Itrax core-scanner comparison for multi-scale high-resolution petrophysical characterisation workflow. Applied Geochemistry, 2021, 133, 104956.	1.4	1
193	Landslides, Ice Quakes, Earthquakes: A Thermodynamic Approach to Surface Instabilities. , 2009, , 1885-1908.		1
194	Thermo-Hydro-Mechanics in Shear Fracturing in Geothermal Reservoirs. Springer Series in Geomechanics and Geoengineering, 2017, , 327-333.	0.0	1
195	Non-equilibrium Thermodynamics, Thermomechanics, Geodynamics. Lecture Notes in Computer Science, 2007, , 62-69.	1.0	1
196	Episodic mineralising fluid injection through chemical shear zones. ASEG Extended Abstracts, 2018, 2018, 1-5.	0.1	1
197	Flour Quality effects on percolation of gas bubbles in wheat flour doughs. Innovative Food Science and Emerging Technologies, 2021, 74, 102841.	2.7	1
198	STOCHASTIC ANALYSIS OF PERCOLATION AND ANISOTROPIC PERMEABILITY FROM MICRO-TOMOGRAPHY AND AN APPLICATION TO MYLONITE. , 2010, , 229-245.		1

#	ARTICLE	IF	CITATIONS
199	Analysis of thermally induced flows in the laboratory by geoelectrical 3D tomography. Journal of Geophysical Research, 2010, 115, .	3.3	0
200	Carbonate characterization, property simulation and upscaling using microtomography. , 2013, , .		0
201	Geothermal air conditioning: typical applications using deep-warm and shallow-cool reservoirs for cooling in Perth, Western Australia. International Journal for Simulation and Multidisciplinary Design Optimization, 2014, 5, A10.	0.6	0
202	Next Generation Resource Discovery linking Geophysical Sensing, Modelling and Interpretation. ASEG Extended Abstracts, 2016, 2016, 1-5.	0.1	0
203	Dissipative propagation of pressure waves along the slip-lines of yielding material. International Journal of Engineering Science, 2016, 107, 149-168.	2.7	0
204	Thermo-poro-mechanics Modelling of Gypsum Dehydration. Sustainable Civil Infrastructures, 2018, , 177-188.	0.1	0
205	Next Generation Reservoir Engineering. ASEG Extended Abstracts, 2018, 2018, 1-5.	0.1	0
206	On the Geothermal Potential of the Heyuan Fault, South China. ASEG Extended Abstracts, 2018, 2018, 1-8.	0.1	0
207	Information Theory Based Probabilistic Machine Learning And Wireline Inversion: Surat Basin Case Study. ASEG Extended Abstracts, 2019, 2019, 1-4.	0.1	0
208	Rock physics for multiscale, multiphysics data assimilation from molecular to laboratory scale. ASEG Extended Abstracts, 2019, 2019, 1-4.	0.1	0
209	Penrose Conference Scheduledâ€”Extending a Continent: Architecture, Rheological Coupling, and Heat Budget. GSA Today, 2007, 17, 28.	1.1	0
210	Extension of a Continent: Architecture, Rheological Coupling, and Heat Budget. GSA Today, 2008, 18, 13.	1.1	0
211	Multiscale Brittle-Ductile Coupling and Genesis of Slow Earthquakes. , 2008, , 523-543.		0
212	Using Time-Dependent Borehole Failure to Understand Diffusion-Driven Weakening and Strain in Reservoir Rocks and Seals. , 2015, , .		0
213	The Role of Convection in Basin Modelling: Lessons From the Perth Basin. , 2015, , .		0
214	Modelling the Complexity of Continental Breakup and Basin Formation Including the Role of Magmatism. , 2015, , .		0
215	Geomechanical Instabilities In Diagenetically Altered Unconventional Reservoirs Enhance Fluid Pressure And Production.. , 2015, , .		0
216	REDBACK: An Open-Source Highly Scalable Geomechanical Modeling Simulator. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
217	Petrography, petrology and mineralogy of eclogite nodules from the Jwaneng Diamond Mine, Botswana. An approach documented by mantle metasomatism, kimberlite emplacement and finally by super sonic uplift of the diamondiferous host rocks. , 2021, , .		0
218	Quartz Rheology and Short-time-scale Crustal Instabilities. , 2006, , 1915-1932.		0