Klaus Regenauer-Lieb

List of Publications by Year in descending order

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218 papers 5,571 citations

76294 40 h-index 63 g-index

240 all docs

240 docs citations

times ranked

240

3835 citing authors

#	Article	IF	Citations
1	Limit analysis for the seismic stability of three-dimensional rock slopes using the generalized Hoek-Brown criterion. International Journal of Mining Science and Technology, 2022, 32, 237-245.	4.6	19
2	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
3	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
4	Cross-scale dynamic interactions in compacting porous media as a trigger to pattern formation. Geophysical Journal International, 2022, 230, 1280-1291.	1.0	6
5	How to avoid multiple scattering in strongly scattering SANS and USANS samples. Fuel, 2022, 325, 124957.	3.4	6
6	Computer vision and unsupervised machine learning for pore-scale structural analysis of fractured porous media. Advances in Water Resources, 2021, 147, 103801.	1.7	4
7	Distribution, microphysical properties, and tectonic controls of deformation bands in the Miocene subduction wedge (Whakataki Formation) of the Hikurangi subduction zone. Solid Earth, 2021, 12, 141-170.	1.2	7
8	Identification, segregation, and characterization of individual cracks in three dimensions. International Journal of Rock Mechanics and Minings Sciences, 2021, 138, 104615.	2.6	3
9	Application of percolation theory to microtomography of rocks. Earth-Science Reviews, 2021, 214, 103519.	4.0	17
10	Cross-diffusion waves resulting from multiscale, multi-physics instabilities: theory. Solid Earth, 2021, 12, 869-883.	1.2	12
11	Fast in-situ X-ray scattering reveals stress sensitivity of gypsum dehydration kinetics. Communications Materials, 2021, 2, .	2.9	6
12	Regular spacing of deformation bands in sandstone: Layer-thickness control or constitutive instability?. Journal of Structural Geology, 2021, 147, 104335.	1.0	2
13	Thermomechanics for Geological, Civil Engineering and Geodynamic Applications: Numerical Implementation and Application to the Bentheim Sandstone. Rock Mechanics and Rock Engineering, 2021, 54, 5337-5354.	2.6	5
14	Cross-diffusion waves resulting from multiscale, multiphysics instabilities: application to earthquakes. Solid Earth, 2021, 12, 1829-1849.	1.2	7
15	Acid stimulation in carbonates: A laboratory test of a wormhole model based on Damköhler and Péclet numbers. Journal of Petroleum Science and Engineering, 2021, 203, 108593.	2.1	22
16	Micro-scale dissolution seams mobilise carbon in deep-sea limestones. Communications Earth $\&$ Environment, 2021, 2, .	2.6	6
17	Thermomechanics for Geological, Civil Engineering and Geodynamic Applications: Rate-Dependent Critical State Line Models. Rock Mechanics and Rock Engineering, 2021, 54, 5355-5373.	2.6	13
18	Pore accessibility and trapping of methane in Marcellus Shale. International Journal of Coal Geology, 2021, 248, 103850.	1.9	18

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19	A Hylogger-Itrax core-scanner comparison for multi-scale high-resolution petrophysical characterisation workflow. Applied Geochemistry, 2021, 133, 104956.	1.4	1
20	Multiphase Fluid Flow through Fractured Porous Media Supported by Innovative Laboratory and Numerical Methods for Estimating Relative Permeability. Energy & Energy & 2021, 35, 17372-17388.	2.5	6
21	Flour Quality effects on percolation of gas bubbles in wheat flour doughs. Innovative Food Science and Emerging Technologies, 2021, 74, 102841.	2.7	1
22	Deformation of pores in response to uniaxial and hydrostatic stress cycling in Marcellus Shale: Implications for gas recovery. International Journal of Coal Geology, 2021, 248, 103867.	1.9	9
23	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
24	Accessibility of Pores to Methane in New Albany Shale Samples of Varying Maturity Determined Using SANS and USANS. Energies, 2021, 14, 8438.	1.6	5
25	Cross-diffusion waves in hydro-poro-mechanics. Journal of the Mechanics and Physics of Solids, 2020, 135, 103632.	2.3	20
26	Influence of stress field anisotropy on drilling-induced tensile fracture. Environmental Geotechnics, 2020, 7, 373-379.	1.3	3
27	Microstructural analyses of a giant quartz reef in south China reveal episodic brittle-ductile fluid transfer. Journal of Structural Geology, 2020, 130, 103911.	1.0	8
28	Effects of surface roughness and derivation of scaling laws on gas transport in coal using a fractal-based lattice Boltzmann method. Fuel, 2020, 259, 116229.	3.4	24
29	Modeling the effects of gas slippage, cleat network topology and scale dependence of gas transport in coal seam gas reservoirs. Fuel, 2020, 264, 116715.	3.4	18
30	Tracking Metamorphic Dehydration Reactions in Real Time with Transmission Small- and Wide-Angle Synchrotron X-ray Scattering: the Case of Gypsum Dehydration. Journal of Petrology, 2020, 61, .	1.1	5
31	On Representative Elementary Volumes of Grayscale Micro T Images of Porous Media. Geophysical Research Letters, 2020, 47, e2020GL088594.	1.5	28
32	A novel experimental system for measurement of coupled multi-physics-induced surface alteration processes in geomaterials. Measurement: Journal of the International Measurement Confederation, 2020, 166, 108211.	2.5	6
33	The Dynamic Evolution of Permeability in Compacting Carbonates: Phase Transition and Critical Points. Transport in Porous Media, 2020, 135, 687-711.	1.2	3
34	On the interpretation of contact angle for geomaterial wettability: Contact area versus three-phase contact line. Journal of Petroleum Science and Engineering, 2020, 195, 107579.	2.1	28
35	The effects of a tectonic stress regime change on crustal-scale fluid flow at the Heyuan geothermal fault system, South China. Tectonophysics, 2020, 781, 228399.	0.9	11
36	An immersed boundary-lattice Boltzmann method for gaseous slip flow. Physics of Fluids, 2020, 32, .	1.6	11

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37	The dynamic evolution of compaction bands in highly porous carbonates: the role of local heterogeneity for nucleation and propagation. Progress in Earth and Planetary Science, 2020, 7, .	1.1	23
38	Permeability measurements during triaxial and direct shear loading using a novel X-ray transparent apparatus: Fractured shale examples from Beetaloo basin, Australia. NDT and E International, 2019, 107, 102129.	1.7	17
39	A hybrid immersed boundary-lattice Boltzmann/finite difference method for coupled dynamics of fluid flow, advection, diffusion and adsorption in fractured and porous media. Computers and Geosciences, 2019, 128, 70-78.	2.0	31
40	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
41	The mineral factory: how to build a giant quartz reef. ASEG Extended Abstracts, 2019, 2019, 1-4.	0.1	1
42	2-D finite displacements and strain from particle imaging velocimetry (PIV) analysis of tectonic analogue models with TecPIV. Solid Earth, 2019, 10, 1123-1139.	1.2	16
43	Investigating rock micro-structure of sandstones by pattern recognition on their X-ray images. ASEG Extended Abstracts, 2019, 2019, 1-3.	0.1	2
44	Information Theory Based Probabilistic Machine Learning And Wireline Inversion: Surat Basin Case Study. ASEG Extended Abstracts, 2019, 2019, 1-4.	0.1	0
45	Rock physics for multiscale, multiphysics data assimilation from molecular to laboratory scale. ASEG Extended Abstracts, 2019, 2019, 1-4.	0.1	O
46	Rock Characterization Using Grayâ€Level Coâ€Occurrence Matrix: An Objective Perspective of Digital Rock Statistics. Water Resources Research, 2019, 55, 1912-1927.	1.7	20
47	Analytical and experimental investigation of pore pressure induced strain softening around boreholes. International Journal of Rock Mechanics and Minings Sciences, 2019, 113, 1-10.	2.6	23
48	New Generation of Hoek Cells. Geotechnical Testing Journal, 2019, 42, 20170110.	0.5	15
49	Computational upscaling of Drucker-Prager plasticity from micro-CT images of synthetic porous rock. Geophysical Journal International, 2018, 212, 151-163.	1.0	10
50	The dynamics of multiscale, multiphysics faults: Part II - Episodic stick-slip can turn the jelly sandwich into a crÃ"me brûlée. Tectonophysics, 2018, 746, 659-668.	0.9	2
51	The dynamics of multiscale, multiphysics faults: Part I - The long-term behaviour of the lithosphere. Tectonophysics, 2018, 746, 648-658.	0.9	4
52	Thermo-poro-mechanics Modelling of Gypsum Dehydration. Sustainable Civil Infrastructures, 2018, , 177-188.	0.1	0
53	Next Generation Reservoir Engineering. ASEG Extended Abstracts, 2018, 2018, 1-5.	0.1	0
54	On the Geothermal Potential of the Heyuan Fault, South China. ASEG Extended Abstracts, 2018, 2018, 1-8.	0.1	0

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55	Determining the origin, circulation path and residence time of geothermal groundwater using multiple isotopic techniques in the Heyuan Fault Zone of Southern China. Journal of Hydrology, 2018, 567, 339-350.	2.3	38
56	Entropic Limit Analysis Applied to Radial Cavity Expansion Problems. Frontiers in Materials, 2018, 5, .	1.2	5
57	Episodic mineralising fluid injection through chemical shear zones. ASEG Extended Abstracts, 2018, 2018, 1-5.	0.1	1
58	Dynamic response of cracked Timoshenko beams on elastic foundations under moving harmonic loads. JVC/Journal of Vibration and Control, 2017, 23, 432-457.	1.5	11
59	A novel low grade heat driven process to re-concentrate process liquor in alumina refineries. Hydrometallurgy, 2017, 170, 34-42.	1.8	5
60	A Framework for Fracture Network Formation in Overpressurised Impermeable Shale: Deformability Versus Diagenesis. Rock Mechanics and Rock Engineering, 2017, 50, 689-703.	2.6	27
61	Frictional behaviour of sandstone: A sample-size dependent triaxial investigation. Journal of Structural Geology, 2017, 94, 154-165.	1.0	29
62	A comparative study of Maxwell viscoelasticity at large strains and rotations. Geophysical Journal International, 2017, 211, 252-262.	1.0	1
63	Entropy production in a box: Analysis of instabilities in confined hydrothermal systems. Water Resources Research, 2017, 53, 7716-7739.	1.7	4
64	The Role of Temperature in Shear Instability and Bifurcation of Internally Pressurized Deep Boreholes. Rock Mechanics and Rock Engineering, 2017, 50, 3003-3017.	2.6	11
65	Techno-economic analysis of geothermal desalination using Hot Sedimentary Aquifers: A pre-feasibility study for Western Australia. Desalination, 2017, 404, 167-181.	4.0	50
66	Non-linear modal analysis of structural components subjected to unilateral constraints. Journal of Sound and Vibration, 2017, 389, 380-410.	2.1	14
67	Shear heating in creeping faults changes the onset of convectionÂ. Geophysical Journal International, 2017, 211, 270-283.	1.0	5
68	Hierarchical creep cavity formation in an ultramylonite and implications for phase mixing. Solid Earth, 2017, 8, 1193-1209.	1.2	29
69	Thermo-Hydro-Mechanics in Shear Fracturing in Geothermal Reservoirs. Springer Series in Geomechanics and Geoengineering, 2017, , 327-333.	0.0	1
70	Analysis of Dynamics in Multiphysics Modelling of Active Faults. Mathematics, 2016, 4, 57.	1.1	3
71	Next Generation Resource Discovery linking Geophysical Sensing, Modelling and Interpretation. ASEG Extended Abstracts, 2016, 2016, 1-5.	0.1	0
72	A novel wave-mechanics approach for fluid flow in unconventional resources. The Leading Edge, 2016, 35, 90-97.	0.4	10

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73	Conditions for the localisation of plastic deformation in temperature sensitive viscoplastic materials. Journal of Mechanics of Materials and Structures, 2016, 11, 113-136.	0.4	16
74	Strain localization in ductile rocks: A comparison of natural and simulated pinch-and-swell structures. Tectonophysics, 2016, 680, 140-154.	0.9	4
75	A lattice spring model for dynamic analysis of damaged beam-type structures under moving loads. European Journal of Mechanics, A/Solids, 2016, 60, 196-207.	2.1	3
76	Dissipative propagation of pressure waves along the slip-lines of yielding material. International Journal of Engineering Science, 2016, 107, 149-168.	2.7	0
77	Conductivity response to intraplate deformation: Evidence for metamorphic devolatilization and crustalâ€scale fluid focusing. Geophysical Research Letters, 2016, 43, 11,236.	1.5	18
78	Total Porosity of Tight Rocks: A Welcome to the Heat Transfer Technique. Energy & En	2.5	27
79	Non-linear analysis of beam-like structures on unilateral foundations: A lattice spring model. International Journal of Solids and Structures, 2016, 88-89, 192-214.	1.3	11
80	Boudinage and folding as an energy instability in ductile deformation. Journal of Geophysical Research: Solid Earth, 2016, 121, 3996-4013.	1.4	8
81	Computational challenges in the analyses of petrophysics using microtomography and upscaling: A review. Computers and Geosciences, 2016, 89, 107-117.	2.0	47
82	A novel flash boosted evaporation process for alumina refineries. Applied Thermal Engineering, 2016, 94, 375-384.	3.0	14
83	Replacement of annular domain with trapezoidal domain in computational modeling of nonaqueous-phase-liquid dissolution-front propagation problems. Journal of Central South University, 2015, 22, 1841-1846.	1.2	12
84	Numerical modeling of toxic nonaqueous phase liquid removal from contaminated groundwater systems: mesh effect and discretization error estimation. International Journal for Numerical and Analytical Methods in Geomechanics, 2015, 39, 571-593.	1.7	33
85	Melt instabilities in an intraplate lithosphere and implications for volcanism in the Harrat Ashâ€Shaam volcanic field (NW Arabia). Journal of Geophysical Research: Solid Earth, 2015, 120, 1543-1558.	1.4	15
86	Multiscale, multiphysics geomechanics for geodynamics applied to buckling instabilities in the middle of the Australian craton. Philosophical Magazine, 2015, 95, 3055-3077.	0.7	8
87	Boosted Multi-Effect Distillation for sensible low-grade heat sources: A comparison with feed pre-heating Multi-Effect Distillation. Desalination, 2015, 366, 32-46.	4.0	35
88	Coupling of thermal-hydraulic-mechanical processes for geothermal reservoir modelling. Journal of Earth Science (Wuhan, China), 2015, 26, 47-52.	1.1	5
89	Application of the Boosted MED process for low-grade heat sources — A pilot plant. Desalination, 2015, 366, 47-58.	4.0	19
90	Boudinage as a material instability of elasto-visco-plastic rocks. Journal of Structural Geology, 2015, 78, 86-102.	1.0	20

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91	Thermo-economic analysis of two novel low grade sensible heat driven desalination processes. Desalination, 2015, 365, 316-328.	4.0	42
92	Cnoidal waves in solids. Journal of the Mechanics and Physics of Solids, 2015, 78, 231-248.	2.3	45
93	Deep geothermal: The †Moon Landing†mission in the unconventional energy and minerals space. Journal of Earth Science (Wuhan, China), 2015, 26, 2-10.	1.1	13
94	Rock plasticity from microtomography and upscaling. Journal of Earth Science (Wuhan, China), 2015, 26, 53-59.	1.1	7
95	Foreword: Toward a quantitative understanding of the frontier in geothermal energy. Journal of Earth Science (Wuhan, China), 2015, 26, 1-1.	1.1	5
96	Compaction-driven melt segregation in migmatites. Geology, 2015, 43, 471-474.	2.0	37
97	A parallel computing tool for large-scale simulation of massive fluid injection in thermo-poro-mechanical systems. Philosophical Magazine, 2015, 95, 3078-3102.	0.7	11
98	Groundwater cooling of a supercomputer in Perth, Western Australia: hydrogeological simulations and thermal sustainability. Hydrogeology Journal, 2015, 23, 1831-1849.	0.9	12
99	Review of extremum postulates. Current Opinion in Chemical Engineering, 2015, 7, 40-46.	3.8	27
100	Using Time-Dependent Borehole Failure to Understand Diffusion-Driven Weakening and Strain in Reservoir Rocks and Seals. , 2015, , .		0
101	The Role of Convection in Basin Modelling: Lessons From the Perth Basin. , 2015, , .		0
102	Modelling the Complexity of Continental Breakup and Basin Formation Including the Role of Magmatism. , 2015, , .		0
103	Geomechanical Instabilities In Diagenetically Altered Unconventional Reservoirs Enhance Fluid Pressure And Production, 2015, , .		0
104	REDBACK: An Open-Source Highly Scalable Geomechanical Modeling Simulator. , 2015, , .		0
105	Thermoâ€poroâ€mechanics of chemically active creeping faults: 3. The role of serpentinite in episodic tremor and slip sequences, and transition to chaos. Journal of Geophysical Research: Solid Earth, 2014, 119, 4606-4625.	1.4	46
106	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
107	Ductile compaction of partially molten rocks: the effect of non-linear viscous rheology on instability and segregation. Geophysical Journal International, 2014, 200, 519-523.	1.0	25
108	Automated thresholding and analysis of microCT scanned bread dough. Journal of Microscopy, 2014, 256, 100-110.	0.8	5

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109	Combined mechanical and melting damage model for geomaterials. Geophysical Journal International, 2014, 198, 1319-1328.	1.0	6
110	A Novel Technique for Dynamic Analysis of Beam-Like Structures on Tensionless Elastic Foundations Subjected to Moving Loads. Advanced Materials Research, 2014, 1016, 192-197.	0.3	4
111	Free vibration analysis of a cracked shear deformable beam on a two-parameter elastic foundation using a lattice spring model. Journal of Sound and Vibration, 2014, 333, 2359-2377.	2.1	30
112	Predicting the Integral Heat of Adsorption for Gas Physisorption on Microporous and Mesoporous Adsorbents. Journal of Physical Chemistry C, 2014, 118, 8350-8358.	1.5	15
113	A novel process for low grade heat driven desalination. Desalination, 2014, 351, 202-212.	4.0	58
114	The Fluid Dynamics of Solid Mechanical Shear Zones. Pure and Applied Geophysics, 2014, 171, 3159-3174.	0.8	7
115	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. Journal of Geochemical Exploration, 2014, 144, 84-96.	1.5	47
116	A multi-scaling approach to predict hydraulic damage of poromaterials. International Journal of Mechanical Sciences, 2014, 78, 1-7.	3.6	24
117	Thermodynamic optimisation of multi effect distillation driven by sensible heat sources. Desalination, 2014, 336, 160-167.	4.0	43
118	Low-grade waste heat driven desalination technology. International Journal for Simulation and Multidisciplinary Design Optimization, 2014, 5, A02.	0.6	15
119	Modeling episodic fluidâ€release events in the ductile carbonates of the Glarus thrust. Geophysical Research Letters, 2014, 41, 7121-7128.	1.5	43
120	From transient to steady state deformation and grain size: A thermodynamic approach using elasto-visco-plastic numerical modeling. Journal of Geophysical Research: Solid Earth, 2014, 119, 900-918.	1.4	21
121	Entropic Bounds for Multi-Scale and Multi-Physics Coupling in Earth Sciences. Understanding Complex Systems, 2014, , 323-335.	0.3	5
122	Application of geothermal absorption air-conditioning system: A case study. Applied Thermal Engineering, 2013, 50, 71-80.	3.0	42
123	Digital bread crumb: Creation and application. Journal of Food Engineering, 2013, 116, 852-861.	2.7	21
124	Computational modeling of moving interfaces between fluid and porous medium domains. Computational Geosciences, 2013, 17, 151-166.	1.2	31
125	Predicting isosteric heats for gas adsorption. Physical Chemistry Chemical Physics, 2013, 15, 473-482.	1.3	32
126	Carbonate characterization, property simulation and upscaling using microtomography., 2013,,.		0

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127	Anisotropic damage mechanics as a novel approach to improve pre- and post-failure borehole stability analysis. Geophysical Journal International, 2013, 193, 1095-1109.	1.0	29
128	Multiscale coupling and multiphysics approaches in earth sciences: Theory. Journal of Coupled Systems and Multiscale Dynamics, 2013, 1, 49-73.	0.2	42
129	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
130	Applications of Microtomography to Multiscale System Dynamics: Visualisation, Characterisation and High Performance Computation. Lecture Notes in Earth System Sciences, 2013, , 653-674.	0.5	4
131	Multiscale coupling and multiphysics approaches in earth sciences: Applications. Journal of Coupled Systems and Multiscale Dynamics, 2013, 1, 281-323.	0.2	34
132	Pore formation during dehydration of a polycrystalline gypsum sample observed and quantified in a time-series synchrotron X-ray micro-tomography experiment. Solid Earth, 2012, 3, 71-86.	1.2	49
133	A limit analysis approach to derive a thermodynamic damage potential for non-linear geomaterials. Philosophical Magazine, 2012, 92, 3439-3450.	0.7	10
134	The role of elastic stored energy in controlling the long term rheological behaviour of the lithosphere. Journal of Geodynamics, 2012, 55, 66-75.	0.7	14
135	Some fundamental issues in computational hydrodynamics of mineralization: A review. Journal of Geochemical Exploration, 2012, 112, 21-34.	1.5	51
136	Thermalâ€elastic stresses and the criticality of the continental crust. Geochemistry, Geophysics, Geosystems, 2012, 13, .	1.0	16
137	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. Journal of Geodynamics, 2012, 61, 154-171.	0.7	5
138	A porosity-gradient replacement approach for computational simulation of chemical-dissolution front propagation in fluid-saturated porous media including pore-fluid compressibility. Computational Geosciences, 2012, 16, 735-755.	1.2	31
139	Python scripting libraries for subsurface fluid and heat flow simulations with TOUGH2 and SHEMAT. Computers and Geosciences, 2012, 43, 197-206.	2.0	32
140	Asymmetric lithospheric instability facilitated by shear modulus contrast: implications for shear zones. Geophysical Journal International, 2012, 190, 23-36.	1.0	7
141	Poromechanics of saturated media based on the logarithmic finite strain. Mechanics of Materials, 2012, 51, 118-136.	1.7	30
142	Uncertainties have a meaning: Information entropy as a quality measure for 3-D geological models. Tectonophysics, 2012, 526-529, 207-216.	0.9	196
143	Modelling of deformation around magmatic intrusions with application to gold-related structures in the Yilgarn Craton, Western Australia. Tectonophysics, 2012, 526-529, 133-146.	0.9	9
144	Thermal–hydraulic–mechanical–chemical coupling with damage mechanics using ESCRIPTRT and ABAQUS. Tectonophysics, 2012, 526-529, 124-132.	0.9	39

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145	Toward enhanced subsurface intervention methods using chaotic advection. Journal of Contaminant Hydrology, 2012, 127, 15-29.	1.6	54
146	Continuum damage mechanics for the lithosphere. Journal of Geophysical Research, 2011, 116 , .	3.3	49
147	Geothermal Cities. Preview, 2011, 2011, 25-28.	0.0	2
148	The thermodynamics of deformed metamorphic rocks: A review. Journal of Structural Geology, 2011, 33, 758-818.	1.0	59
149	Low grade heat driven multi-effect distillation technology. International Journal of Heat and Mass Transfer, 2011, 54, 5497-5503.	2.5	66
150	Application of percolation theory to microtomography of structured media: Percolation threshold, critical exponents, and upscaling. Physical Review E, 2011, 83, 016106.	0.8	74
151	Computational simulation for the morphological evolution of nonaqueous phase liquid dissolution fronts in two-dimensional fluid-saturated porous media. Computational Geosciences, 2011, 15, 167-183.	1.2	38
152	Frame indifferent elastoplasticity of frictional materials at finite strain. International Journal of Solids and Structures, 2011, 48, 397-407.	1.3	24
153	A damaged visco-plasticity model for pressure and temperature sensitive geomaterials. International Journal of Engineering Science, 2011, 49, 1141-1150.	2.7	34
154	Time-dependent, irreversible entropy production and geodynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 285-300.	1.6	23
155	A partially open porous media flow with chaotic advection: towards a model of coupled fields. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 217-230.	1.6	25
156	Folding with thermal mechanical feedback: Another reply. Journal of Structural Geology, 2010, 32, 131-134.	1.0	6
157	An experimental and theoretical study of the mixing characteristics of a periodically reoriented irrotational flow. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2147-2162.	1.6	21
158	Towards incorporating uncertainty of structural data in 3D geological inversion. Tectonophysics, 2010, 490, 141-151.	0.9	169
159	Interaction between mantle and crustal detachments: A nonlinear system controlling lithospheric extension. Journal of Geophysical Research, 2010, 115, .	3.3	27
160	Analysis of thermally induced flows in the laboratory by geoelectrical $3\hat{a}\in D$ tomography. Journal of Geophysical Research, 2010, 115, .	3.3	0
161	Ductile fractures and magma migration from source. Geology, 2010, 38, 363-366.	2.0	59
162	On oscillating flows in randomly heterogeneous porous media. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 197-216.	1.6	9

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163	A unified multi-scale thermodynamical framework for coupling geomechanical and chemical simulations. Tectonophysics, 2010, 483, 178-189.	0.9	18
164	STOCHASTIC ANALYSIS OF PERCOLATION AND ANISOTROPIC PERMEABILITY FROM MICRO-TOMOGRAPHY AND AN APPLICATION TO MYLONITE. , 2010 , , $229-245$.		1
165	Folding with thermal-mechanical feedback: A reply. Journal of Structural Geology, 2009, 31, 752-755.	1.0	13
166	PreMDB, a thermodynamically consistent material database as a key to geodynamic modelling. Acta Geotechnica, 2009, 4, 107-115.	2.9	10
167	Landslides, Ice Quakes, Earthquakes: A Thermodynamic Approach to Surface Instabilities. Pure and Applied Geophysics, 2009, 166, 1885-1908.	0.8	29
168	Creep cavitation can establish a dynamic granular fluid pump in ductile shear zones. Nature, 2009, 459, 974-977.	13.7	204
169	Deformation with coupled chemical diffusion. Physics of the Earth and Planetary Interiors, 2009, 172, 43-54.	0.7	21
170	Improved estimates of percolation and anisotropic permeability from 3â€D Xâ€ray microtomography using stochastic analyses and visualization. Geochemistry, Geophysics, Geosystems, 2009, 10, .	1.0	27
171	Landslides, Ice Quakes, Earthquakes: A Thermodynamic Approach to Surface Instabilities. , 2009, , 1885-1908.		1
172	First Steps Towards Modeling a Multi-Scale Earth System. Lecture Notes in Earth Sciences, 2009, , 1-25.	0.5	2
173	Multiscale Brittle-Ductile Coupling and Genesis of Slow Earthquakes. Pure and Applied Geophysics, 2008, 165, 523-543.	0.8	54
174	Grain boundaries: a possible water reservoir in the Earth's mantle?. Mineralogy and Petrology, 2008, 94, 1-8.	0.4	19
175	Folding with thermal–mechanical feedback. Journal of Structural Geology, 2008, 30, 1572-1592.	1.0	49
176	A model comparison study of large-scale mantle–lithosphere dynamics driven by subduction. Physics of the Earth and Planetary Interiors, 2008, 171, 224-234.	0.7	43
177	Strain localisation and weakening of the lithosphere during extension. Tectonophysics, 2008, 458, 96-104.	0.9	50
178	The geodynamics of lithospheric extension. Tectonophysics, 2008, 458, 1-8.	0.9	46
179	The role of water in connecting past and future episodes of subduction. Earth and Planetary Science Letters, 2008, 273, 15-27.	1.8	103
180	Extension of a Continent: Architecture, Rheological Coupling, and Heat Budget. GSA Today, 2008, 18, 13.	1.1	0

#	Article	IF	CITATIONS
181	Multiscale Brittle-Ductile Coupling and Genesis of Slow Earthquakes. , 2008, , 523-543.		O
182	Thermodynamics of folding in the middle to lower crust. Geology, 2007, 35, 175.	2.0	29
183	Mantle detachment faults and the breakup of cold continental lithosphere. Geology, 2007, 35, 1035.	2.0	49
184	Shear band emergence in granular materialsâ€"a numerical study. International Journal for Numerical and Analytical Methods in Geomechanics, 2007, 31, 373-393.	1.7	26
185	Non-equilibrium Thermodynamics, Thermomechanics, Geodynamics. Lecture Notes in Computer Science, 2007, , 62-69.	1.0	1
186	Penrose Conference Scheduledâ€"Extending a Continent: Architecture, Rheological Coupling, and Heat Budget. GSA Today, 2007, 17, 28.	1.1	0
187	A coupled solid–fluid method for modelling subduction. Philosophical Magazine, 2006, 86, 3307-3323.	0.7	35
188	19. Water and Geodynamics. , 2006, , 451-474.		2
189	The effect of energy feedbacks on continental strength. Nature, 2006, 442, 67-70.	13.7	133
190	Water and Geodynamics. Reviews in Mineralogy and Geochemistry, 2006, 62, 451-473.	2.2	17
191	Automatic detection of particle aggregation in particle code simulations of rock deformation. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	1.0	4
192	Quartz Rheology and Short-time-scale Crustal Instabilities. Pure and Applied Geophysics, 2006, 163, 1915-1932.	0.8	18
193	Curvature of oceanic arcs. Geology, 2006, 34, 877.	2.0	117
194	From point defects to plate tectonic faults. Philosophical Magazine, 2006, 86, 3373-3392.	0.7	17
195	Quartz Rheology and Short-time-scale Crustal Instabilities. , 2006, , 1915-1932.		0
196	Towards a self-consistent plate mantle model that includes elasticity: simple benchmarks and application to basic modes of convection. Geophysical Journal International, 2005, 163, 788-800.	1.0	40
197	Continental extension: From core complexes to rigid block faulting. Geology, 2005, 33, 609.	2.0	49
198	On the thermodynamics of listric faults. Earth, Planets and Space, 2004, 56, 1111-1120.	0.9	11

#	Article	IF	Citations
199	A smeared seismicity constitutive model. Earth, Planets and Space, 2004, 56, 1121-1133.	0.9	6
200	Fluid reservoirs in the crust and mechanical coupling between the upper and lower crust. Earth, Planets and Space, 2004, 56, 1151-1161.	0.9	16
201	Positive feedback of interacting ductile faults from coupling of equation of state, rheology and thermal-mechanics. Physics of the Earth and Planetary Interiors, 2004, 142, 113-135.	0.7	77
202	Ab initio emergent phenomena in PFC. , 2004, , 235-239.		2
203	Modeling shear zones in geological and planetary sciences: solid- and fluid-thermal–mechanical approaches. Earth-Science Reviews, 2003, 63, 295-349.	4.0	156
204	Dynamics of retreating slabs: 2. Insights from three-dimensional laboratory experiments. Journal of Geophysical Research, 2003, 108, .	3.3	148
205	Dynamics of retreating slabs: 1. Insights from two-dimensional numerical experiments. Journal of Geophysical Research, 2003, 108, .	3.3	61
206	Water solubility and diffusivity in olivine: its role in planetary tectonics. Mineralogical Magazine, 2003, 67, 697-715.	0.6	31
207	Weak zone formation for initiating subduction from thermo-mechanical feedback of low-temperature plasticity. Earth and Planetary Science Letters, 2001, 190, 237-250.	1.8	20
208	The Initiation of Subduction: Criticality by Addition of Water?. Science, 2001, 294, 578-580.	6.0	348
209	Quasi-adiabatic instabilities associated with necking processes of an elasto-viscoplastic lithosphere. Physics of the Earth and Planetary Interiors, 2000, 118, 89-102.	0.7	18
210	Fast mechanisms for the formation of new plate boundaries. Tectonophysics, 2000, 322, 53-67.	0.9	23
211	Fast ductile failure of passive margins from sediment loading. Geophysical Research Letters, 2000, 27, 1989-1992.	1.5	12
212	Quasi-adiabatic shear zones in the lithosphere: numerical and experimental approaches. Visual Geosciences, 1999, 4, 1-14.	0.5	2
213	Heat generation associated with collision of two plates: the Himalayan geothermal belt. Journal of Volcanology and Geothermal Research, 1998, 83, 75-92.	0.8	70
214	Dilatant plasticity applied to Alpine collision: ductile void growth in the intraplate area beneath the Eifel volcanic field. Journal of Geodynamics, 1998, 27, 1-21.	0.7	61
215	Rapid conversion of elastic energy into plastic shear heating during incipient necking of the lithosphere. Geophysical Research Letters, 1998, 25, 2737-2740.	1.5	72
216	Cutting of the European continental lithosphere: Plasticity theory applied to the present Alpine collision. Journal of Geophysical Research, 1997, 102, 7731-7746.	3.3	37

ı	#	Article	IF	CITATIONS
	217	Plastic velocity vector diagrams applied to indentation and transpression in the Alps. Journal of Geodynamics, 1996, 21, 339-353.	0.7	10
	218	Geochemistry and heat transfer processes in Quaternary rhyolitic systems of The Taupo Volcanic Zone, New Zealand. Tectonophysics, 1993, 223, 213-235.	0.9	45