John Rudnicki

List of Publications by Year
in descending order

55 papers	2,703 citations	186209 28 h-index	182361 51 g-index
66 all docs	66 docs citations	66 times ranked	1391 citing authors

#	Article	IF	Citations
1	The Role of Stratigraphy and Loading History in Generating Complex Compaction Bands in Idealized Fieldâ€Scale Settings. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB020452.	1.4	5
2	Constraints on the deformation of the vibrissa within the follicle. PLoS Computational Biology, 2021, 17, e1007887.	1.5	9
3	Dilatancy and Compaction of a Rateâ€andâ€State Fault in a Poroelastic Medium: Linearized Stability Analysis. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022071.	1.4	11
4	Dynamics anisotropy in a porous solid with aligned slit fractures. Journal of the Mechanics and Physics of Solids, 2020, 137, 103865.	2.3	14
5	Effect of Pressure Rate on Rate and State Frictional Slip. Geophysical Research Letters, 2020, 47, e2020GL089426.	1.5	8
6	Dynamic stress intensity factor (Mode I) of a permeable penny-shaped crack in a fluid-saturated poroelastic solid. International Journal of Solids and Structures, 2017, 110-111, 127-136.	1.3	24
7	Normal compression wave scattering by a permeable crack in a fluid-saturated poroelastic solid. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 356-367.	1.5	22
8	Tactile Sensing with Whiskers of Various Shapes: Determining the Three-Dimensional Location of Object Contact Based on Mechanical Signals at the Whisker Base. Soft Robotics, 2017, 4, 88-102.	4.6	40
9	Failure characteristics of two porous sandstones subjected to true triaxial stresses: Applied through a novel loading path. Journal of Geophysical Research: Solid Earth, 2017, 122, 2525-2540.	1.4	62
10	The application of a Matsuoka-Nakai-Lade-Duncan failure criterion to two porous sandstones. International Journal of Rock Mechanics and Minings Sciences, 2017, 92, 9-18.	2.6	51
11	Plane-Strain Shear Dislocation on a Leaky Plane in a Poroelastic Solid. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	1.1	10
12	Deriving Biot-Gassmann relationship by inclusion-based method. Geophysics, 2016, 81, D657-D667.	1.4	8
13	Dynamic bulk and shear moduli due to grain-scale local fluid flow in fluid-saturated cracked poroelastic rocks: Theoretical model. Journal of the Mechanics and Physics of Solids, 2016, 92, 28-54.	2.3	19
14	Dynamic transverse shear modulus for a heterogeneous fluid-filled porous solid containing cylindrical inclusions. Geophysical Journal International, 2016, 206, 1677-1694.	1.0	13
15	Shear properties of heterogeneous fluid-filled porous media with spherical inclusions. International Journal of Solids and Structures, 2016, 83, 154-168.	1.3	24
16	Stability and localization of rapid shear in fluidâ€saturated fault gouge: 1. Linearized stability analysis. Journal of Geophysical Research: Solid Earth, 2014, 119, 4311-4333.	1.4	67
17	Stability and localization of rapid shear in fluidâ€saturated fault gouge: 2. Localized zone width and strength evolution. Journal of Geophysical Research: Solid Earth, 2014, 119, 4334-4359.	1.4	77
18	A multiscale DEM-LBM analysis on permeability evolutions inside a dilatant shear band. Acta Geotechnica, 2013, 8, 465-480.	2.9	72

#	Article	IF	Citations
19	Failure of Rocks in the Laboratory and in the Earth. , 2013, , 199-215.		4
20	Connecting microstructural attributes and permeability from 3D tomographic images of in situ shear-enhanced compaction bands using multiscale computations. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	75
21	Multiscale method for characterization of porous microstructures and their impact on macroscopic effective permeability. International Journal for Numerical Methods in Engineering, 2011, 88, 1260-1279.	1.5	71
22	The effect of the intermediate principal stress on fault formation and fault angle in siltstone. Journal of Structural Geology, 2010, 32, 1701-1711.	1.0	89
23	Models for compaction band propagation. Geological Society Special Publication, 2007, 284, 107-125.	0.8	16
24	Compaction localization in the Earth and the laboratory: state of the research and research directions. Acta Geotechnica, 2007, 2, 1-15.	2.9	100
25	Effective normal stress alteration due to pore pressure changes induced by dynamic slip propagation on a plane between dissimilar materials. Journal of Geophysical Research, 2006, 111, .	3.3	57
26	A mathematical model for seepage of deeply buried groundwater under higher pressure and temperature. Journal of Hydrology, 2006, 327, 42-54.	2.3	14
27	Elliptic yield cap constitutive modeling for high porosity sandstone. International Journal of Solids and Structures, 2005, 42, 4574-4587.	1.3	79
28	Anticrack inclusion model for compaction bands in sandstone. Journal of Geophysical Research, 2005, 110, .	3.3	151
29	Energy release model of compaction band propagation. Geophysical Research Letters, 2005, 32, .	1.5	43
30	Effect of rate dependence in shear heating of a fluid-saturated fault zone. , 2005, , .		1
31	Shear and compaction band formation on an elliptic yield cap. Journal of Geophysical Research, 2004, 109, .	3.3	84
32	Localization: Shear Bands and Compaction Bands. International Geophysics, 2004, 89, 219-321.	0.6	57
33	Shear heating of a fluid-saturated slip-weakening dilatant fault zone 1. Limiting regimes. Journal of Geophysical Research, 2003, 108, .	3.3	47
34	Observation and modeling of the suction pump effect during rapid dilatant slip. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	11
35	Shear heating of a fluid-saturated slip-weakening dilatant fault zone: 2. Quasi-drained regime. Journal of Geophysical Research, 2003, 108, .	3.3	14
36	Un modÃ¨le d'endommagement anisotrope pour roches fragiles: application au granite. Revue EuropÃ©enne De GÃ©nie Civil, 2002, 6, 49-58.	0.0	0

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37	Compaction Localization in Porous Sandstone: Implications for Reservoir Mechanics. Oil and Gas Science and Technology, 2002, 57, 591-599.	1.4	39
38	Effects of normal stress variations on frictional stability of a fluid-infiltrated fault. Journal of Geophysical Research, 2001, 106, 11353-11372.	3.3	22
39	Finite element simulations of Tennessee marble under plane strain laboratory testing: Effects of sampleâ€“platen friction on shear band onset. Mechanics of Materials, 2001, 33, 47-60.	1.7	13
40	Terrestrial sequestration of CO2: An assessment of research needs. Advances in Geophysics, 2001, 43, 97-IX.	1.1	48
41	Conditions for compaction bands in porous rock. Journal of Geophysical Research, 2000, 105, 21529-21536.	3.3	227
42	Report looks at sequestering CO2beneath Earth's surface. Eos, 1999, 80, 607.	0.1	5
43	The sliding wing crack-again!. Geophysical Research Letters, 1995, 22, 2901-2904.	1.5	14
44	Plane-Strain Shear Dislocations Moving Steadily in Linear Elastic Diffusive Solids. Journal of Applied Mechanics, Transactions ASME, 1990, 57, 32-39.	1.1	19
45	Physical models of earthquake instability and precursory processes. Pure and Applied Geophysics, 1988, 126, 531-554.	0.8	60
46	Stabilization of rapid frictional slip on a weakening fault by dilatant hardening. Journal of Geophysical Research, 1988, 93, 4745-4757.	3.3	107
47	Plane Strain Dislocations in Linear Elastic Diffusive Solids. Journal of Applied Mechanics, Transactions ASME, 1987, 54, 545-552.	1.1	41
48	An Introduction to the Theory of Seismology. Journal of Applied Mechanics, Transactions ASME, 1986, 53, 732-733.	1.1	151
49	Fluid mass sources and point forces in linear elastic diffusive solids. Mechanics of Materials, 1986, 5, 383-393.	1.7	144
50	Coupled deformation-diffusion effects on water-level changes due to propagating creep events. Pure and Applied Geophysics, 1985, 122, 560-582.	0.8	44
51	A Class of Elasticâ€Plastic Constitutive Laws for Brittle Rock. Journal of Rheology, 1984, 28, 759-778.	1.3	16
52	Fracture Mechanics Applied to the Earth's Crust. Annual Review of Earth and Planetary Sciences, 1980, 8, 489-525.	4.6	155
53	Rotation of principal stress axes caused by faulting. Geophysical Research Letters, 1979, 6, 135-138.	1.5	10
54	The inception of faulting in a rock mass with a weakened zone. Journal of Geophysical Research, 1977, 82, 844-854.	3.3	114

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55	Slip on an Impermeable Fault in a Fluid-Saturated Rock Mass. Geophysical Monograph Series, 0, , 81-89.	0.1	15