Hengshan Hu

List of Publications by Year
in descending order

74 papers	1,169 citations	331259 21 h-index	476904 29 g-index
77 all docs	77 docs citations	77 times ranked	399 citing authors

#	Article	IF	Citations
1	Theoretical simulation of electroacoustic borehole logging in a fluid-saturated porous formation. Journal of the Acoustical Society of America, 2007, 122, 135-145.	0.5	65
2	Finite-difference modeling of the electroseismic logging in a fluid-saturated porous formation. Journal of Computational Physics, 2008, 227, 5633-5648.	1.9	62
3	Electromagnetic field generated by a finite fault due to electrokinetic effect. Journal of Geophysical Research, 2011, 116, .	3.3	60
4	Seismoelectromagnetic waves radiated by a double couple source in a saturated porous medium. Geophysical Journal International, 2010, , .	1.0	44
5	Modeling of the coseismic electromagnetic fields observed during the 2004 M_w 6.0 Parkfield earthquake. Geophysical Research Letters, 2016, 43, 620-627.	1.5	44
6	Permeability inversion from low‑frequency seismoelectric logs in fluid‑saturated porous formations. Geophysical Prospecting, 2013, 61, 120-133.	1.0	37
7	Early electromagnetic waves from earthquake rupturing: II. validation and numerical experiments. Geophysical Journal International, 2013, 192, 1308-1323.	1.0	37
8	Electrokinetic experimental study on saturated rock samples: zeta potential and surface conductance. Geophysical Journal International, 2015, 201, 869-877.	1.0	34
9	Early electromagnetic waves from earthquake rupturing: I. theoretical formulations. Geophysical Journal International, 2013, 192, 1288-1307.	1.0	33
10	An improved AE detection method of rail defect based on multi-level ANC with VSS-LMS. Mechanical Systems and Signal Processing, 2018, 99, 420-433.	4.4	32
11	A new rail crack detection method using LSTM network for actual application based on AE technology. Applied Acoustics, 2018, 142, 78-86.	1.7	32
12	Finite-difference modeling of the monopole acoustic logs in a horizontally stratified porous formation. Journal of the Acoustical Society of America, 2009, 125, 1942-1950.	0.5	30
13	Induced electromagnetic field by seismic waves in Earth's magnetic field. Journal of Geophysical Research: Solid Earth, 2014, 119, 5651-5685.	1.4	30
14	Fast and slow flexural waves in a deviated borehole in homogeneous and layered anisotropic formations. Geophysical Journal International, 2010, 181, 417-426.	1.0	28
15	Finite difference modelling of dipole acoustic logs in a poroelastic formation with anisotropic permeability. Geophysical Journal International, 2013, 192, 359-374.	1.0	28
16	Borehole flexural modes in transversely isotropic formations: Low-frequency asymptotic velocity. Geophysics, 2009, 74, E149-E158.	1.4	27
17	Theoretical simulation of the multipole seismoelectric logging while drilling. Geophysical Journal International, 2013, 195, 1239-1250.	1.0	27
18	Shear properties of heterogeneous fluid-filled porous media with spherical inclusions. International Journal of Solids and Structures, 2016, 83, 154-168.	1.3	24

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19	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
20	Experimental measurements of seismoelectric signals in borehole models. Geophysical Journal International, 2015, 203, 1937-1945.	1.0	22
21	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
22	Rail crack detection using acoustic emission technique by joint optimization noise clustering and time window feature detection. Applied Acoustics, 2020, 160, 107141.	1.7	22
23	A theoretical investigation of acoustic monopole logging-while-drilling individual waves with emphasis on the collar wave and its dependence on formation. Geophysics, 2017, 82, D1-D11.	1.4	21
24	Simulation of the converted electric field during acoustoelectric logging. , 2002, , .		19
25	A technique to eliminate the azimuth ambiguity in single-well imaging. Geophysics, 2014, 79, D409-D416.	1.4	19
26	Comparison of full and quasiâ€static seismoelectric analytically based modeling. Journal of Geophysical Research: Solid Earth, 2017, 122, 8066-8106.	1.4	18
27	The evaluation of rock permeability with streaming current measurements. Geophysical Journal International, 2016, 206, 1563-1573.	1.0	17
28	Seismoelectric responses to an explosive source in a fluid above a fluidâ€saturated porous medium. Journal of Geophysical Research: Solid Earth, 2017, 122, 7190-7218.	1.4	17
29	Contributions of poroelastic-wave potentials to seismoelectromagnetic wavefields and validity of the quasi-static calculation: a view from a borehole model. Geophysical Journal International, 2018, 212, 458-475.	1.0	17
30	Asymptotic solution to a 3D dipole single-well imaging system with combined monopole and dipole receivers with an application in elimination of azimuth ambiguity. Geophysics, 2019, 84, D191-D207.	1.4	17
31	Simulation of the borehole quasistatic electric field excited by the acoustic wave during logging while drilling due to electrokinetic effect. Geophysics, 2015, 80, D417-D427.	1.4	16
32	The Parameter Averaging Technique in Finite-Difference Modeling of Elastic Waves in Combined Structures with Solid, Fluid and Porous Subregions. Communications in Computational Physics, 2011, 10, 695-715.	0.7	15
33	Numerical study of the collar wave characteristics and the effects of grooves in acoustic logging while drilling. Geophysical Journal International, 2017, 209, 749-761.	1.0	14
34	Electromagnetic responses to an earthquake source due to the motional induction effect in a 2-D layered model. Geophysical Journal International, 2019, 219, 563-593.	1.0	14
35	Dynamics anisotropy in a porous solid with aligned slit fractures. Journal of the Mechanics and Physics of Solids, 2020, 137, 103865.	2.3	14
36	Effective properties of a porous medium with aligned cracks containing compressible fluid. Geophysical Journal International, 2020, 221, 60-76.	1.0	14

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37	Dynamic transverse shear modulus for a heterogeneous fluid-filled porous solid containing cylindrical inclusions. Geophysical Journal International, 2016, 206, 1677-1694.	1.0	13
38	Reciprocity relations for the elastodynamic fields generated by multipole sources in a fluid–solid configuration. Geophysical Journal International, 2015, 203, 883-892.	1.0	12
39	Elastic wave scattering by a fluid-saturated circular crack and effective properties of a solid with a sparse distribution of aligned cracks. Journal of the Acoustical Society of America, 2019, 146, 470-485.	0.5	10
40	Seismic attenuation and dispersion in a cracked porous medium: An effective medium model based on poroelastic linear slip conditions. Mechanics of Materials, 2020, 140, 103229.	1.7	10
41	Spectral element modeling of elastic wave propagation in an anisotropic background with discrete anisotropic fractures. Geophysical Journal International, 0, , .	1.0	10
42	Single-valued definition of the multivalued function for borehole acoustic waves in transversely isotropic formations. Science China: Physics, Mechanics and Astronomy, 2010, 53, 1419-1426.	2.0	9
43	P-wave attenuation and dispersion in a fluid-saturated rock with aligned rectangular cracks. Mechanics of Materials, 2020, 147, 103409.	1.7	9
44	Deriving Biot-Gassmann relationship by inclusion-based method. Geophysics, 2016, 81, D657-D667.	1.4	8
45	Inversion of the shear velocity of the cement in cased borehole through ultrasonic flexural waves. Geophysics, 2017, 82, D57-D68.	1.4	8
46	Simulation of seismoelectric waves using finite-difference frequency-domain method: 2D SHTE mode. Geophysical Journal International, 0, , .	1.0	8
47	Measurements of the seismoelectric responses in a synthetic porous rock. Geophysical Journal International, 2020, 222, 436-448.	1.0	8
48	Stress intensity factors of a Griffith crack in a porous medium subjected to a time-harmonic stress wave. Engineering Fracture Mechanics, 2020, 223, 106801.	2.0	7
49	Solutions of P-SV and SV-P waves in single-well imaging through reciprocity relations. Geophysics, 2020, 85, D245-D259.	1.4	6
50	Frequency-dependent anisotropy in porous rocks with aligned cracks containing compressible fluid–a model based on poroelastic spring condition and exact solution of scattering by a circular crack at oblique incidence. Geophysical Journal International, 2021, 226, 1105-1129.	1.0	6
51	Moment tensors of a dislocation in a porous medium. Pure and Applied Geophysics, 2016, 173, 2033-2045.	0.8	5
52	A semianalytical approach to calculate the reflected wave of an eccentric source in a borehole. Geophysics, 2019, 84, D1-D9.	1.4	5
53	High-resolution inversion for dispersion characteristics of acoustic logging waveforms. Journal of Geophysics and Engineering, 2020, 17, 439-450.	0.7	5
54	A study on the influence of salinity interfaces on borehole seismoelectric wavefields. Geophysics, 2020, 85, D167-D180.	1.4	5

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55	Fracture analysis on an infinite row of collinear permeable cracks in a porous medium. Engineering Fracture Mechanics, 2020, 232, 107050.	2.0	4
56	Attenuation and dispersion of P-waves in fluid-saturated porous rocks with a distribution of coplanar cracks â€" Scattering approach. Geophysics, 2021, 86, MR81-MR93.	1.4	4
57	Combination of FDTD With Analytical Methods for Simulating Elastic Scattering of 3-D Objects Outside a Fluid-Filled Borehole. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 5325-5334.	2.7	3
58	Simulation of borehole acoustic wavefields in fractured media by combining the spectral-element method and linear-slip model. Geophysics, 2021, 86, D177-D192.	1.4	3
59	The electric field induced by the fast Pâ€wave and its nonexistence in a dynamically compatible porous medium. , 2009, , .		3
60	The mechanical responses in monopole acoustic LWD and their relation with the output voltage waveform. Journal of Geophysics and Engineering, 2021, 18, 712-724.	0.7	2
61	Seismic Sources in Stressâ€Induced Anisotropic Media. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	2
62	Finiteâ€difference modeling of electroacoustic logging response in fluidâ€saturated porous formation. , 2007, , .		1
63	2D seismoelectric log simulation using a finiteâ€difference method. , 2009, , .		1
64	Rail crack detection based on the adaptive noise cancellation method of EMD at high speed. , 2017, , .		1
65	Determination of Electroosmotic Pressure by Two Pressure Transducers. , 2017, , .		1
66	Inversion of formation shear speed from dipole Scholte wave during logging while drilling in slow formations. Proceedings of Meetings on Acoustics, 2017, , .	0.3	1
67	Successive measurements of streaming potential and electroosmotic pressure with the same core-holder. Journal of Applied Geophysics, 2018, 152, 48-55.	0.9	1
68	Modified multiplying-factor integration method for solving exponential function dual integrals in crack problems. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, .	1.5	1
69	Simulation of Monopole and Multipole Seismoelectric Logging. Advances in Acoustics and Vibration, 2011, 2011, 1-10.	0.5	0
70	Solutions for Effective Shear Properties in a Three-Phase Poroelastic Sphere Model. , 2017, , .		0
71	AE detection of crack signal in tank shell using the multi-sensors with adaptive weighted fusion method. , 2018, , .		0
72	Scattering problems for a rectangular crack in a saturated porous material: application of the Chebyshev's functions. Waves in Random and Complex Media, 0, , 1-30.	1.6	0

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73	Chemical free energy profiles for martensitic transformation of CuAlNi at finite temperatures. Computational Materials Science, 2021, 195, 110478.	1.4	0
74	The low‐frequency asymptotic velocity of pseudo‐Rayleigh, flexural, and screw modes in anisotropic formations. , 2009, , .		0