

Günter Zimmermann

List of Publications by Year in descending order

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52
papers

2,386
citations

159585

30
h-index

214800

47
g-index

53
all docs

53
docs citations

53
times ranked

1606
citing authors

#	ARTICLE	IF	CITATIONS
1	Slip tendency analysis, fault reactivation potential and induced seismicity in a deep geothermal reservoir. <i>Journal of Structural Geology</i> , 2009, 31, 1174-1182.	2.3	197
2	A grain based modeling study of mineralogical factors affecting strength, elastic behavior and micro fracture development during compression tests in granites. <i>Engineering Fracture Mechanics</i> , 2015, 147, 261-275.	4.3	120
3	Hot water generation for oil sands processing from enhanced geothermal systems: Process simulation for different hydraulic fracturing scenarios. <i>Applied Energy</i> , 2014, 113, 524-547.	10.1	112
4	Hydraulic stimulation of a deep sandstone reservoir to develop an Enhanced Geothermal System: Laboratory and field experiments. <i>Geothermics</i> , 2010, 39, 70-77.	3.4	107
5	Cyclic waterfrac stimulation to develop an Enhanced Geothermal System (EGS)â€”Conceptual design and experimental results. <i>Geothermics</i> , 2010, 39, 59-69.	3.4	103
6	Hydraulic fracture monitoring in hard rock at 410Äm depth with an advanced fluid-injection protocol and extensive sensor array. <i>Geophysical Journal International</i> , 2017, 208, 790-813.	2.4	98
7	How to Reduce Fluid-Injection-Induced Seismicity. <i>Rock Mechanics and Rock Engineering</i> , 2019, 52, 475-493.	5.4	97
8	Numerical Investigation on Stress Shadowing in Fluid Injection-Induced Fracture Propagation in Naturally Fractured Geothermal Reservoirs. <i>Rock Mechanics and Rock Engineering</i> , 2015, 48, 1439-1454.	5.4	96
9	First field application of cyclic soft stimulation at the Pohang Enhanced Geothermal System site in Korea. <i>Geophysical Journal International</i> , 2019, 217, 926-949.	2.4	90
10	Cyclic hydraulic fracturing of pocheon granite cores and its impact on breakdown pressure, acoustic emission amplitudes and injectivity. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2019, 122, 104065.	5.8	83
11	A grain based modeling study of fracture branching during compression tests in granites. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2015, 77, 152-162.	5.8	77
12	Geochemical properties of saline geothermal fluids from the in-situ geothermal laboratory GroÄŸ SchÄ¶nebeck (Germany). <i>Chemie Der Erde</i> , 2010, 70, 3-12.	2.0	69
13	The Effects of Temperature and Pressure on the Porosity Evolution of Flechtinger Sandstone. <i>Rock Mechanics and Rock Engineering</i> , 2014, 47, 421-434.	5.4	67
14	Potential for enhanced geothermal systems in Alberta, Canada. <i>Energy</i> , 2014, 69, 578-591.	8.8	66
15	Rock specific hydraulic fracturing and matrix acidizing to enhance a geothermal system â€” Concepts and field results. <i>Tectonophysics</i> , 2011, 503, 146-154.	2.2	65
16	Cyclic soft stimulation (CSS): a new fluid injection protocol and traffic light system to mitigate seismic risks of hydraulic stimulation treatments. <i>Geothermal Energy</i> , 2018, 6, .	1.9	65
17	Hydraulic history and current state of the deep geothermal reservoir GroÄŸ SchÄ¶nebeck. <i>Geothermics</i> , 2016, 63, 27-43.	3.4	63
18	Direct and indirect laboratory measurements of poroelastic properties of two consolidated sandstones. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2014, 67, 191-201.	5.8	59

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19	A hybrid discrete/finite element modeling study of complex hydraulic fracture development for enhanced geothermal systems (EGS) in granitic basements. <i>Geothermics</i> , 2016, 64, 362-381.	3.4	59
20	Discrete element modeling of cyclic rate fluid injection at multiple locations in naturally fractured reservoirs. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2015, 74, 15-23.	5.8	53
21	Laboratory True Triaxial Hydraulic Fracturing of Granite Under Six Fluid Injection Schemes and Grain-Scale Fracture Observations. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 4329-4344.	5.4	48
22	Pressure-dependent Production Efficiency of an Enhanced Geothermal System (EGS): Stimulation Results and Implications for Hydraulic Fracture Treatments. <i>Pure and Applied Geophysics</i> , 2009, 166, 1089-1106.	1.9	42
23	Microseismicity induced during fluid-injection: A case study from the geothermal site at GroÄ SchÄnebeck, North German Basin. <i>Acta Geophysica</i> , 2010, 58, 995-1020.	2.0	42
24	Permeability Enhancement and Fracture Development of Hydraulic In Situ Experiments in the ÄspÄ Hard Rock Laboratory, Sweden. <i>Rock Mechanics and Rock Engineering</i> , 2019, 52, 495-515.	5.4	42
25	Thermoporoelastic properties of Flechtinger sandstone. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2012, 49, 94-104.	5.8	35
26	Transmissivity of aligned and displaced tensile fractures in granitic rocks during cyclic loading. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2016, 87, 69-84.	5.8	34
27	Discrete element modeling of fluid injectionÄinduced seismicity and activation of nearby fault. <i>Canadian Geotechnical Journal</i> , 2015, 52, 1457-1465.	2.8	33
28	Discrete Element Modelling of Hydraulic Fracture Propagation and Dynamic Interaction with Natural Fractures in Hard Rock. <i>Procedia Engineering</i> , 2017, 191, 1023-1031.	1.2	33
29	Evaluating Micro-Seismic Events Triggered by Reservoir Operations at the Geothermal Site of GroÄ SchÄnebeck (Germany). <i>Rock Mechanics and Rock Engineering</i> , 2018, 51, 3265-3279.	5.4	31
30	Cyclic Water Injection Potentially Mitigates Seismic Risks by Promoting Slow and Stable Slip of a Natural Fracture in Granite. <i>Rock Mechanics and Rock Engineering</i> , 2021, 54, 5389-5405.	5.4	31
31	Observations and analyses of the first two hydraulic stimulations in the Pohang geothermal development site, South Korea. <i>Geothermics</i> , 2020, 88, 101905.	3.4	28
32	Keynote: Fatigue Hydraulic Fracturing. <i>Procedia Engineering</i> , 2017, 191, 1126-1134.	1.2	25
33	Induced seismicity risk analysis of the hydraulic stimulation of a geothermal well on Geldinganes, Iceland. <i>Natural Hazards and Earth System Sciences</i> , 2020, 20, 1573-1593.	3.6	23
34	Impact of Poroelastic Response of Sandstones on Geothermal Power Production. <i>Pure and Applied Geophysics</i> , 2009, 166, 1107-1123.	1.9	20
35	Potential for enhanced geothermal systems in low permeability limestones Ä stimulation strategies for the Western Malm karst (Bavaria). <i>Geothermics</i> , 2014, 51, 351-367.	3.4	18
36	Relaxation damage control via fatigue-hydraulic fracturing in granitic rock as inferred from laboratory-, mine-, and field-scale experiments. <i>Scientific Reports</i> , 2021, 11, 6780.	3.3	18

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37	A Poroelastic Description of Permeability Evolution. Pure and Applied Geophysics, 2014, 171, 1187-1201.	1.9	17
38	Mechanically Induced Fracture-Face Skinâ€™Insights From Laboratory Testing and Modeling Approaches. SPE Production and Operations, 2013, 28, 26-35.	0.6	16
39	Hydromechanical analysis of the second hydraulic stimulation in well PX-1 at the Pohang fractured geothermal reservoir, South Korea. Geothermics, 2021, 89, 101990.	3.4	15
40	Fluid Pressure Variation in a Sedimentary Geothermal Reservoir in the North German Basin: Case Study GroÃŸ SchÃ¶nebeck. Pure and Applied Geophysics, 2006, 163, 2141-2152.	1.9	14
41	Geochemical interactions of Al ₂ O ₃ -based proppants with highly saline geothermal brines at simulated in situ temperature conditions. Geothermics, 2013, 47, 53-60.	3.4	14
42	Far field poroelastic response of geothermal reservoirs to hydraulic stimulation treatment: Theory and application at the GroÃŸ SchÃ¶nebeck geothermal research facility. International Journal of Rock Mechanics and Minings Sciences, 2018, 110, 316-327.	5.8	14
43	Rapid water-rock interactions evidenced by hydrochemical evolution of flowback fluid during hydraulic stimulation of a deep geothermal borehole in granodiorite: Pohang, Korea. Applied Geochemistry, 2019, 111, 104445.	3.0	8
44	Static and Dynamic Moduli of Malm Carbonate: A Poroelastic Correlation. Pure and Applied Geophysics, 2016, 173, 2841-2855.	1.9	6
45	Effect of Foliation and Fluid Viscosity on Hydraulic Fracturing Tests in Mica Schists Investigated Using Distinct Element Modeling and Field Data. Rock Mechanics and Rock Engineering, 2019, 52, 555-574.	5.4	6
46	Fatigue Behavior of Granite Subjected to Cyclic Hydraulic Fracturing and Observations on Pressure for Fracture Growth. Rock Mechanics and Rock Engineering, 2021, 54, 5207.	5.4	6
47	Soft stimulation treatment of geothermal well RV-43 to meet the growing heat demand of Reykjavik. Geothermics, 2021, 96, 102146.	3.4	5
48	Numerical Simulation of Complex Fracture Network Development by Hydraulic Fracturing in Naturally Fractured Ultratight Formations. , 2013, , .		3
49	Impact of Poroelastic Response of Sandstones on Geothermal Power Production. , 2009, , 1107-1123.		1
50	Case Study on GroÃŸ SchÃ¶nebeck EGS Project Research in Germany. Tunnel and Underground Space, 2015, 25, 320-331.	0.1	0
51	Impact of Injection Style on the Evolution of Fluid-Induced Seismicity and Permeability in Rock Mass at 410Âm Depth in Å,spÅ Hard Rock Laboratory, Sweden. , 2020, , 89-102.		0
52	Applications for Deep Geothermal Engineering. , 2020, , 317-346.		0