GÃ¼nter Zimmermann

List of Publications by Year
in descending order

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52	2,386	159585 30	214800 47
papers	citations	h-index	g-index

53	53	53	1606
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	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
3	Relaxation damage control via fatigue-hydraulic fracturing in granitic rock as inferred from laboratory-, mine-, and field-scale experiments. Scientific Reports, 2021, 11, 6780.	3.3	18
4	Cyclic Water Injection Potentially Mitigates Seismic Risks by Promoting Slow and Stable Slip of a Natural Fracture in Granite. Rock Mechanics and Rock Engineering, 2021, 54, 5389-5405.	5.4	31
5	Soft stimulation treatment of geothermal well RV-43 to meet the growing heat demand of Reykjavik. Geothermics, 2021, 96, 102146.	3.4	5
6	Observations and analyses of the first two hydraulic stimulations in the Pohang geothermal development site, South Korea. Geothermics, 2020, 88, 101905.	3.4	28
7	Laboratory True Triaxial Hydraulic Fracturing of Granite Under Six Fluid Injection Schemes and Grain-Scale Fracture Observations. Rock Mechanics and Rock Engineering, 2020, 53, 4329-4344.	5.4	48
8	Induced seismicity risk analysis of the hydraulic stimulation of a geothermal well on Geldinganes, Iceland. Natural Hazards and Earth System Sciences, 2020, 20, 1573-1593.	3.6	23
9	Impact of Injection Style on the Evolution of Fluid-Induced Seismicity and Permeability in Rock Mass at 410Âm Depth in Ã„spÃ¶ Hard Rock Laboratory, Sweden. , 2020, , 89-102.		0
10	Applications for Deep Geothermal Engineering. , 2020, , 317-346.		0
11	Permeability Enhancement and Fracture Development of Hydraulic In Situ Experiments in the Ã„spÃ¶ Hard Rock Laboratory, Sweden. Rock Mechanics and Rock Engineering, 2019, 52, 495-515.	5.4	42
12	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
13	Cyclic hydraulic fracturing of pocheon granite cores and its impact on breakdown pressure, acoustic emission amplitudes and injectivity. International Journal of Rock Mechanics and Minings Sciences, 2019, 122, 104065.	5.8	83
14	First field application of cyclic soft stimulation at the Pohang Enhanced Geothermal System site in Korea. Geophysical Journal International, 2019, 217, 926-949.	2.4	90
15	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
16	How to Reduce Fluid-Injection-Induced Seismicity. Rock Mechanics and Rock Engineering, 2019, 52, 475-493.	5.4	97
17	Cyclic soft stimulation (CSS): a new fluid injection protocol and traffic light system to mitigate seismic risks of hydraulic stimulation treatments. Geothermal Energy, 2018, 6, .	1.9	65
18	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

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19	Evaluating Micro-Seismic Events Triggered by Reservoir Operations at the Geothermal Site of GroÃŸ SchÃ¶nebeck (Germany). Rock Mechanics and Rock Engineering, 2018, 51, 3265-3279.	5.4	31
20	Discrete Element Modelling of Hydraulic Fracture Propagation and Dynamic Interaction with Natural Fractures in Hard Rock. Procedia Engineering, 2017, 191, 1023-1031.	1.2	33
21	Keynote: Fatigue Hydraulic Fracturing. Procedia Engineering, 2017, 191, 1126-1134.	1.2	25
22	Hydraulic fracture monitoring in hard rock at 410Âm depth with an advanced fluid-injection protocol and extensive sensor array. Geophysical Journal International, 2017, 208, 790-813.	2.4	98
23	A hybrid discrete/finite element modeling study of complex hydraulic fracture development for enhanced geothermal systems (EGS) in granitic basements. Geothermics, 2016, 64, 362-381.	3.4	59
24	Static and Dynamic Moduli of Malm Carbonate: A Poroelastic Correlation. Pure and Applied Geophysics, 2016, 173, 2841-2855.	1.9	6
25	Transmissivity of aligned and displaced tensile fractures in granitic rocks during cyclic loading. International Journal of Rock Mechanics and Minings Sciences, 2016, 87, 69-84.	5.8	34
26	Hydraulic history and current state of the deep geothermal reservoir GroÃŸ SchÃ¶nebeck. Geothermics, 2016, 63, 27-43.	3.4	63
27	Discrete element modeling of fluid injectionâ€“induced seismicity and activation of nearby fault. Canadian Geotechnical Journal, 2015, 52, 1457-1465.	2.8	33
28	Discrete element modeling of cyclic rate fluid injection at multiple locations in naturally fractured reservoirs. International Journal of Rock Mechanics and Minings Sciences, 2015, 74, 15-23.	5.8	53
29	Numerical Investigation on Stress Shadowing in Fluid Injection-Induced Fracture Propagation in Naturally Fractured Geothermal Reservoirs. Rock Mechanics and Rock Engineering, 2015, 48, 1439-1454.	5.4	96
30	A grain based modeling study of fracture branching during compression tests in granites. International Journal of Rock Mechanics and Minings Sciences, 2015, 77, 152-162.	5.8	77
31	A grain based modeling study of mineralogical factors affecting strength, elastic behavior and micro fracture development during compression tests in granites. Engineering Fracture Mechanics, 2015, 147, 261-275.	4.3	120
32	Case Study on GroÃŸ SchÃ¶nebeck EGS Project Research in Germany. Tunnel and Underground Space, 2015, 25, 320-331.	0.1	0
33	Hot water generation for oil sands processing from enhanced geothermal systems: Process simulation for different hydraulic fracturing scenarios. Applied Energy, 2014, 113, 524-547.	10.1	112
34	The Effects of Temperature and Pressure on the Porosity Evolution of Flechtinger Sandstone. Rock Mechanics and Rock Engineering, 2014, 47, 421-434.	5.4	67
35	A Poroelastic Description of Permeability Evolution. Pure and Applied Geophysics, 2014, 171, 1187-1201.	1.9	17
36	Potential for enhanced geothermal systems in Alberta, Canada. Energy, 2014, 69, 578-591.	8.8	66

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37	Direct and indirect laboratory measurements of poroelastic properties of two consolidated sandstones. International Journal of Rock Mechanics and Minings Sciences, 2014, 67, 191-201.	5.8	59
38	Potential for enhanced geothermal systems in low permeability limestones â€“ stimulation strategies for the Western Malm karst (Bavaria). Geothermics, 2014, 51, 351-367.	3.4	18
39	Geochemical interactions of Al2O3-based proppants with highly saline geothermal brines at simulated in situ temperature conditions. Geothermics, 2013, 47, 53-60.	3.4	14
40	Numerical Simulation of Complex Fracture Network Development by Hydraulic Fracturing in Naturally Fractured Ultratight Formations. , 2013, , .		3
41	Mechanically Induced Fracture-Face Skinâ€"Insights From Laboratory Testing and Modeling Approaches. SPE Production and Operations, 2013, 28, 26-35.	0.6	16
42	Thermoporoelastic properties of Flechtinger sandstone. International Journal of Rock Mechanics and Minings Sciences, 2012, 49, 94-104.	5.8	35
43	Rock specific hydraulic fracturing and matrix acidizing to enhance a geothermal system â€" Concepts and field results. Tectonophysics, 2011, 503, 146-154.	2.2	65
44	Microseismicity induced during fluid-injection: A case study from the geothermal site at GroÃŸ SchÃ¶nebeck, North German Basin. Acta Geophysica, 2010, 58, 995-1020.	2.0	42
45	Cyclic waterfrac stimulation to develop an Enhanced Geothermal System (EGS)â€"Conceptual design and experimental results. Geothermics, 2010, 39, 59-69.	3.4	103
46	Hydraulic stimulation of a deep sandstone reservoir to develop an Enhanced Geothermal System: Laboratory and field experiments. Geothermics, 2010, 39, 70-77.	3.4	107
47	Geochemical properties of saline geothermal fluids from the in-situ geothermal laboratory GroÃŸ SchÃ¶nebeck (Germany). Chemie Der Erde, 2010, 70, 3-12.	2.0	69
48	Slip tendency analysis, fault reactivation potential and induced seismicity in a deep geothermal reservoir. Journal of Structural Geology, 2009, 31, 1174-1182.	2.3	197
49	Impact of Poroelastic Response of Sandstones on Geothermal Power Production. Pure and Applied Geophysics, 2009, 166, 1107-1123.	1.9	20
50	Pressure-dependent Production Efficiency of an Enhanced Geothermal System (EGS): Stimulation Results and Implications for Hydraulic Fracture Treatments. Pure and Applied Geophysics, 2009, 166, 1089-1106.	1.9	42
51	Impact of Poroelastic Response of Sandstones on Geothermal Power Production. , 2009, , 1107-1123.		1
52	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