

Andrey A Afanasyev

List of Publications by Year in descending order

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Version: 2024-02-01

47
papers

389
citations

933447

10
h-index

839539

18
g-index

56
all docs

56
docs citations

56
times ranked

324
citing authors

#	ARTICLE	IF	CITATIONS
1	Formation of magmatic brine lenses via focussed fluid-flow beneath volcanoes. <i>Earth and Planetary Science Letters</i> , 2018, 486, 119-128.	4.4	62
2	Hydrothermal alteration of kimberlite by convective flows of external water. <i>Contributions To Mineralogy and Petrology</i> , 2014, 168, 1038.	3.1	36
3	The economic potential of metalliferous sub-volcanic brines. <i>Royal Society Open Science</i> , 2021, 8, 202192.	2.4	30
4	Multiphase compositional modelling of CO2 injection under subcritical conditions: The impact of dissolution and phase transitions between liquid and gaseous CO2 on reservoir temperature. <i>International Journal of Greenhouse Gas Control</i> , 2013, 19, 731-742.	4.6	28
5	Investigation of hydrothermal activity at Campi Flegrei caldera using 3D numerical simulations: Extension to high temperature processes. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 299, 68-77.	2.1	28
6	Hydrodynamic Modelling of Petroleum Reservoirs using Simulator MUFITS. <i>Energy Procedia</i> , 2015, 76, 427-435.	1.8	23
7	Validation of the MUFITS Reservoir Simulator Against Standard CO2 Storage Benchmarks and History-matched Models of the Ketzin Pilot Site. <i>Energy Procedia</i> , 2016, 97, 395-402.	1.8	23
8	Application of the Reservoir Simulator MUFITS for 3D Modelling of CO2 Storage in Geological Formations. <i>Energy Procedia</i> , 2013, 40, 365-374.	1.8	22
9	Compositional modeling of multicomponent gas injection into saline aquifers with the MUFITS simulator. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 94, 103988.	4.4	14
10	Unsteady one-dimensional water and steam flows through a porous medium with allowance for phase transitions. <i>Fluid Dynamics</i> , 2007, 42, 627-636.	0.9	12
11	Simulation of the properties of a binary carbon dioxide-water mixture under sub- and supercritical conditions. <i>High Temperature</i> , 2012, 50, 340-347.	1.0	10
12	Mathematical model of nonisothermal multiphase binary mixture flow through a porous medium. <i>Fluid Dynamics</i> , 2011, 46, 80-89.	0.9	9
13	Reservoir simulation with the MUFITS code: extension for horizontal wells and fractured reservoirs. <i>Energy Procedia</i> , 2017, 125, 596-603.	1.8	7
14	Phase discontinuities in water flows through a porous medium. <i>Fluid Dynamics</i> , 2006, 41, 574-584.	0.9	6
15	Coupling of Geochemical and Multiphase Flow Processes for Validation of the MUFITS Reservoir Simulator Against TOUGH. <i>Energy Procedia</i> , 2016, 97, 502-508.	1.8	6
16	Influence of permeability on the hydrothermal system at Vulcano Island (Italy): inferences from numerical simulations. <i>Earth, Planets and Space</i> , 2021, 73, .	2.5	6
17	Influence of oil field production life on optimal CO2 flooding strategies: Insight from the microscopic displacement efficiency. <i>Journal of Petroleum Science and Engineering</i> , 2021, 205, 108803.	4.2	6
18	A representation of the equations of multicomponent multiphase seepage. <i>Prikladnaya Matematika I Mekhanika</i> , 2012, 76, 192-198.	0.4	5

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19	Investigation of the efficiency of gas and water injection into an oil reservoir. Fluid Dynamics, 2020, 55, 621-630.	0.9	5
20	Hydrodynamic stability of evaporation fronts in porous media. Fluid Dynamics, 2007, 42, 773-783.	0.9	4
21	Mathematical modeling of multiphase seepage under near-critical conditions. Moscow University Mechanics Bulletin, 2013, 68, 76-79.	0.3	4
22	On the Riemann problem for supercritical CO ₂ injection into an aquifer. International Journal of Greenhouse Gas Control, 2015, 42, 629-643.	4.6	4
23	Interaction of evaporation fronts with a formation interface in a porous medium. Fluid Dynamics, 2008, 43, 418-427.	0.9	3
24	Investigation of the evolutionarity of discontinuities in binary mixture flows through a porous medium. Fluid Dynamics, 2014, 49, 77-87.	0.9	3
25	Investigation of hydrodynamic instability of CO ₂ injection into an aquifer. Fluid Dynamics, 2016, 51, 513-523.	0.9	3
26	Numerical simulation of formation of a concentrated brine lens subject to magma chamber degassing. Fluid Dynamics, 2017, 52, 416-423.	0.9	3
27	Effective Asymptotic Model of Two-Phase Flow through Fractured-Porous Media. Fluid Dynamics, 2019, 54, 671-680.	0.9	3
28	Fluid Displacement in a Dual-Permeability Medium with Local Capillary Equilibrium. Transport in Porous Media, 2020, 135, 513-533.	2.6	3
29	Numerical optimisation of CO ₂ flooding using a hierarchy of reservoir models. Advances in Geosciences, 0, 56, 19-31.	12.0	3
30	On the formulation of problems of nonisothermal water and vapor flow through a high-permeability formation. Fluid Dynamics, 2010, 45, 230-240.	0.9	2
31	Magma degassing during eruption through water-saturated porous rocks. Doklady Physics, 2016, 61, 235-238.	0.7	2
32	Onset of Darcy-Bénard convection in a horizontal layer of dual-permeability medium with isothermal boundaries. Journal of Fluid Mechanics, 2020, 899, .	3.4	2
33	Modelling ground displacement and gravity changes with the MUFITS simulator. Advances in Geosciences, 0, 54, 89-98.	12.0	2
34	Steady-state water and vapor flows in a porous medium. Fluid Dynamics, 2009, 44, 545-554.	0.9	1
35	Binary-mixture flows in a porous medium at high pressure and temperature. Doklady Physics, 2011, 56, 224-226.	0.7	1
36	On the influence of a geothermal system on ground deformation during a volcanic eruption. Journal of Applied Mechanics and Technical Physics, 2016, 57, 1151-1158.	0.5	1

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37	Linear stability analysis for hydrothermal alteration of kimberlitic rocks. <i>Geophysical Journal International</i> , 2016, 205, 1874-1885.	2.4	1
38	Investigation of time-dependent two-dimensional displacement in a porous medium in the self-similar formulation of the problem. <i>Fluid Dynamics</i> , 2017, 52, 516-525.	0.9	1
39	Modeling of Multiphase Thermodynamic Equilibria of NaCl-H ₂ O Binary Mixture in a Wide Range of Pressures and Temperatures. <i>High Temperature</i> , 2018, 56, 859-866.	1.0	1
40	On Solution of the Riemann Problem Describing Injection of a Heated Salt Solution into an Aquifer. <i>Fluid Dynamics</i> , 2019, 54, 510-519.	0.9	1
41	Numerical modelling of brittle-ductile transition with the MUFITS simulator. <i>Computational Geosciences</i> , 2020, 24, 1651-1662.	2.4	1
42	Predicting Fluid Properties in the MUFITS Reservoir Simulator with User-Supplied Modules. <i>Geofluids</i> , 2021, 2021, 1-12.	0.7	1
43	Structure of a Temperature Front in a Fractured Porous Medium. <i>Fluid Dynamics</i> , 2020, 55, 915-924.	0.9	1
44	Effect of Quartz Deposition on the Dynamics of Magma Chamber Degassing. <i>Moscow University Mechanics Bulletin</i> , 2018, 73, 129-134.	0.3	0
45	Method for Well Placement Optimization in Oil Field Development. <i>Moscow University Mechanics Bulletin</i> , 2021, 76, 55-60.	0.3	0
46	Decompaction Weakening as a Mechanism of Fluid Focusing in Hydrothermal Systems. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022397.	3.4	0
47	On the Numerical Modeling of Water Flows in Porous Media under Near-Critical Conditions. <i>Fluid Dynamics</i> , 2020, 55, 1003-1011.	0.9	0