

Holger Ott

List of Publications by Year in descending order

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62
papers

2,904
citations

201674

27
h-index

161849

54
g-index

63
all docs

63
docs citations

63
times ranked

2811
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-time 3D imaging of Haines jumps in porous media flow. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3755-3759.	7.1	490
2	From connected pathway flow to ganglion dynamics. Geophysical Research Letters, 2015, 42, 3888-3894.	4.0	204
3	Displacement and mass transfer between saturated and unsaturated CO ₂ -brine systems in sandstone. International Journal of Greenhouse Gas Control, 2013, 12, 478-492.	4.6	148
4	Critical capillary number: Desaturation studied with fast X-ray computed microtomography. Geophysical Research Letters, 2014, 41, 55-60.	4.0	138
5	Connected pathway relative permeability from pore-scale imaging of imbibition. Advances in Water Resources, 2016, 90, 24-35.	3.8	113
6	Quantum Crystallography: Current Developments and Future Perspectives. Chemistry - A European Journal, 2018, 24, 10881-10905.	3.3	108
7	Stability of CO ₂ -brine immiscible displacement. International Journal of Greenhouse Gas Control, 2012, 11, 188-203.	4.6	107
8	Multiscale Description of Shale Pore Systems by Scanning SAXS and WAXS Microscopy. Energy & Fuels, 2016, 30, 10282-10297.	5.1	92
9	Pore-scale micro-computed-tomography imaging: Nonwetting-phase cluster-size distribution during drainage and imbibition. Physical Review E, 2013, 88, 033002.	2.1	89
10	Nanoscale imaging of pore-scale fluid-fluid-solid contacts in sandstone. Geophysical Research Letters, 2015, 42, 2189-2195.	4.0	86
11	Finite-Size Effect on Magnetic Ordering Temperatures in Long-Period Antiferromagnets: Holmium Thin Films. Physical Review Letters, 2004, 93, 157204.	7.8	83
12	Salt precipitation due to supercritical gas injection: I. Capillary-driven flow in unimodal sandstone. International Journal of Greenhouse Gas Control, 2015, 43, 247-255.	4.6	82
13	Direct Observation of t^2g Ordering in Magnetite. Physical Review Letters, 2008, 100, 026406.	7.8	77
14	The Effect of Mixed Wettability on Pore-Scale Flow Regimes Based on a Flooding Experiment in Ketton Limestone. Geophysical Research Letters, 2019, 46, 3225-3234.	4.0	76
15	Soft x-ray magnetic circular dichroism study on Gd-doped EuO thin films. Physical Review B, 2006, 73, .	3.2	75
16	Wormhole formation and compact dissolution in single- and two-phase CO ₂ -brine injections. Geophysical Research Letters, 2015, 42, 2270-2276.	4.0	74
17	Underground hydrogen storage: application of geochemical modelling in a case study in the Molasse Basin, Upper Austria. Environmental Earth Sciences, 2019, 78, 1.	2.7	68
18	Injection of supercritical CO ₂ in brine saturated sandstone: Pattern formation during salt precipitation. Energy Procedia, 2011, 4, 4425-4432.	1.8	60

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19	Spectroscopy of Stripe Order in $\text{La}_{1.8}\text{Sr}_{0.2}\text{NiO}_4$ Using Resonant Soft X-Ray Diffraction. <i>Physical Review Letters</i> , 2005, 95, 156402.	7.8	59
20	CO_2 brine displacement in heterogeneous carbonates. <i>International Journal of Greenhouse Gas Control</i> , 2015, 33, 135-144.	4.6	55
21	Subsecond pore-scale displacement processes and relaxation dynamics in multiphase flow. <i>Water Resources Research</i> , 2014, 50, 9162-9176.	4.2	49
22	$\mu\text{-CT}$ analysis and numerical simulation of drying effects of CO_2 injection into brine-saturated porous media. <i>International Journal of Greenhouse Gas Control</i> , 2014, 27, 146-154.	4.6	45
23	Microscale solute transport and precipitation in complex rock during drying. <i>Geophysical Research Letters</i> , 2014, 41, 8369-8376.	4.0	39
24	Capillary saturation and desaturation. <i>Physical Review E</i> , 2015, 92, 063023.	2.1	38
25	Core-flood experiment for transport of reactive fluids in rocks. <i>Review of Scientific Instruments</i> , 2012, 83, 084501.	1.3	35
26	Magnetic Domain Fluctuations in an Antiferromagnetic Film Observed with Coherent Resonant Soft X-Ray Scattering. <i>Physical Review Letters</i> , 2011, 106, 077402.	7.8	31
27	Local electronic structure of Fe in MgO thin films: Temperature-dependent soft x-ray absorption spectroscopy study. <i>Physical Review B</i> , 2010, 82, .	3.2	29
28	Salt Precipitation Due to CO_2 -gas Injection: Single Versus Multi-porosity Rocks. <i>Energy Procedia</i> , 2013, 37, 3319-3330.	1.8	26
29	Magnetic x-ray scattering at the M_5 absorption edge of Ho. <i>Physical Review B</i> , 2006, 74, .	3.2	24
30	Resonant magnetic X-ray scattering from ultrathin Ho metal films down to a few atomic layers. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2001, 114-116, 953-957.	1.7	23
31	Symmetry of Orbital Order in Fe_3O_4 Studied by Fe K-edge X-ray Absorption Spectroscopy. <i>Physical Review Letters</i> , 2001, 86, 107401.	7.8	21
32	Fe_3O_4 -Axis Dimer and Its Electronic Breakup: The Insulator-to-Metal Transition in Fe_3O_4 . <i>Physical Review X</i> , 2018, 8, .	8.9	19
33	The Origin of Non-thermal Fluctuations in Multiphase Flow in Porous Media. <i>Frontiers in Water</i> , 2021, 3, .	2.3	19
34	Magnetically ordered surface oxide on $\text{Gd}(0001)$. <i>Physical Review B</i> , 1999, 60, 3449-3452.	3.2	18
35	Multiphase Modelling of Wormhole Formation in Carbonates by the Injection of CO_2 . <i>Energy Procedia</i> , 2017, 114, 2972-2984.	1.8	16
36	Displacement and Mass Transfer of CO_2 /Brine in Sandstone. <i>Energy Procedia</i> , 2012, 23, 512-520.	1.8	15

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37	Fluid-phase topology of complex displacements in porous media. <i>Physical Review Research</i> , 2020, 2, .	3.6	15
38	Salt precipitation due to supercritical gas injection: II. Capillary transport in multi porosity rocks. <i>International Journal of Greenhouse Gas Control</i> , 2021, 105, 103233.	4.6	14
39	Resonant soft x-ray scattering from stepped surfaces of SrTiO ₃ . <i>Journal of Physics Condensed Matter</i> , 2012, 24, 035501.	1.8	13
40	Relationship Between Microbial Growth and Hydraulic Properties at the Sub-Pore Scale. <i>Transport in Porous Media</i> , 2021, 139, 579-593.	2.6	13
41	Performance Quantification of Enhanced Oil Recovery Methods in Fractured Reservoirs. <i>Energies</i> , 2021, 14, 4739.	3.1	12
42	Magnetic depth profiles from resonant soft x-ray scattering: Application to Dy thin films. <i>Applied Physics Letters</i> , 2006, 88, 212507.	3.3	11
43	Oxygen-induced magnetic surface states on the (0001) surfaces of heavy lanthanide metals. <i>Physical Review B</i> , 2002, 65, .	3.2	8
44	Intrinsic and extrinsic x-ray absorption effects in soft x-ray diffraction from the superstructure in magnetite. <i>Physical Review B</i> , 2011, 83, .	3.2	8
45	Pore-Scale Micro-CT Imaging: Cluster Size Distribution During Drainage and Imbibition. <i>Energy Procedia</i> , 2012, 23, 521-526.	1.8	8
46	Development of foam-like emulsion phases in porous media flow. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 1064-1073.	9.4	8
47	Comparability of in situ crude oil emulsification in phase equilibrium and under porous-media-flow conditions. <i>Journal of Colloid and Interface Science</i> , 2022, 615, 196-205.	9.4	8
48	Analysis of charge and orbital order in Fe ₃ O ₄ . <i>Physical Review B</i> , 2016, 93, 040401.	3.2	7
49	Binary Polyazides of Zinc. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 5594-5609.	2.0	7
50	Mechanistic study of the carbonated smart water in carbonate reservoirs. , 2021, 11, 661-681.		7
51	Coupling of CO ₂ and epoxides catalysed by novel N-fused mesoionic carbene complexes of nickel(<i>sc</i>). <i>Dalton Transactions</i> , 2021, 50, 17361-17371.	3.3	7
52	Uniaxial Complex Relative Permittivity Tensor Measurement of Rocks From 40 Hz to 4.5 GHz. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 1125-1139.	6.3	6
53	Resonant magnetic X-ray scattering at the lanthanide M ₅ edges. <i>Physica B: Condensed Matter</i> , 2005, 357, 16-21.	2.7	5
54	Depth-resolved magnetic structure across the ferromagnetic to helical-antiferromagnetic phase transition in Dy/W(110). <i>Physical Review B</i> , 2010, 82, .	3.2	5

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55	Stability of CO ₂ -Brine Primary Drainage. Energy Procedia, 2013, 37, 4568-4574.	1.8	5
56	Magnetic effects in the band structure of ferromagnetic and antiferromagnetic lanthanide metal films. Journal of Electron Spectroscopy and Related Phenomena, 2001, 114-116, 795-799.	1.7	2
57	Explicit continuum scale modeling of low-salinity mechanisms. Journal of Petroleum Science and Engineering, 2021, 199, 108336.	4.2	2
58	Probing complex magnetic structures in thin films: Resonant magnetic soft X-ray scattering at the lanthanide M ₅ edges. Synchrotron Radiation News, 2004, 17, 11-15.	0.8	1
59	Frontispiece: Quantum Crystallography: Current Developments and Future Perspectives. Chemistry - A European Journal, 2018, 24, .	3.3	1
60	CAPOW: a standalone program for the calculation of optimal weighting parameters for least-squares crystallographic refinements. Journal of Applied Crystallography, 2018, 51, 200-204.	4.5	0
61	Bridging Pore and Macroscopic Scale - Scanning SAXS-WAXS Microscopy Applied to Shales. , 2016, , .		0
62	Novel Digital Rock Simulation Approach in Characterizing Gas Trapping by Modified Morphological Workflow. , 2020, , .		0