

Tomas Ficker

List of Publications by Year in descending order

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86
papers

560
citations

687363

13
h-index

713466

21
g-index

87
all docs

87
docs citations

87
times ranked

356
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrification of human body by walking. <i>Journal of Electrostatics</i> , 2006, 64, 10-16.	1.9	67
2	Roughness of fracture surfaces and compressive strength of hydrated cement pastes. <i>Cement and Concrete Research</i> , 2010, 40, 947-955.	11.0	61
3	Fractal strength of cement gels and universal dimension of fracture surfaces. <i>Theoretical and Applied Fracture Mechanics</i> , 2008, 50, 167-171.	4.7	31
4	Charging by walking. <i>Journal Physics D: Applied Physics</i> , 2006, 39, 410-417.	2.8	28
5	Digital fracture surfaces and their roughness analysis: Applications to cement-based materials. <i>Cement and Concrete Research</i> , 2012, 42, 827-833.	11.0	24
6	Alternative Method for Assessing the Roughness Coefficients of Rock Joints. <i>Journal of Computing in Civil Engineering</i> , 2016, 30, .	4.7	18
7	Fracture surfaces and compressive strength of hydrated cement pastes. <i>Construction and Building Materials</i> , 2012, 27, 197-205.	7.2	17
8	Fractal properties of joint roughness coefficients. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2017, 94, 27-31.	5.8	17
9	Is componential strength analysis of concrete possible?. <i>Magazine of Concrete Research</i> , 2013, 65, 1480-1485.	2.0	16
10	Fractal statistics of partial discharges with polymeric samples. <i>Journal of Applied Physics</i> , 1995, 78, 5289-5295.	2.5	15
11	Quasi-static compressive strength of cement-based materials. <i>Cement and Concrete Research</i> , 2011, 41, 129-132.	11.0	15
12	Electrostatic discharges and multifractal analysis of their Lichtenberg figures. <i>Journal Physics D: Applied Physics</i> , 1999, 32, 219-226.	2.8	14
13	Non-isothermal steady-state diffusion within Glaser's condensation model. <i>International Journal of Heat and Mass Transfer</i> , 2003, 46, 5175-5182.	4.8	14
14	Electron avalanches II- fractal morphology of partial microdischarge spots on dielectric barriers. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2003, 10, 700-707.	2.9	14
15	Electron avalanches I-statistics of partial microdischarges in their pre-streamer stage. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2003, 10, 689-699.	2.9	13
16	Notes on hydrated cement fractals investigated by SANS. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 4055-4059.	2.8	13
17	Young's modulus of elasticity in student laboratories. <i>Physics Education</i> , 1999, 34, 376-383.	0.5	12
18	Three-dimensional reconstructions of solid surfaces using conventional microscopes. <i>Scanning</i> , 2016, 38, 21-35.	1.5	12

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19	Deterministic fractals. <i>European Journal of Physics</i> , 2002, 23, 403-408.	0.6	11
20	Sectional techniques for 3D imaging of microscopic and macroscopic objects. <i>Optik</i> , 2017, 144, 289-299.	2.9	9
21	Electrostatic microdischarges on the surface of electrets. <i>Journal Physics D: Applied Physics</i> , 2005, 38, 483-489.	2.8	8
22	Spark and Glow DC-Partial-Discharges in Dielectrics. <i>Japanese Journal of Applied Physics</i> , 1984, 23, 1263-1264.	1.5	7
23	Expansion of the Hausdorff dimension of the two-scale Cantor set. <i>Physical Review A</i> , 1989, 40, 3444-3445.	2.5	7
24	Ring Rolling Research at the Dresden University of Technology – its History from the Beginning in the 70s to the Present. <i>Steel Research International</i> , 2005, 76, 121-124.	1.8	7
25	Fracture surfaces of porous materials. <i>Europhysics Letters</i> , 2007, 80, 16002.	2.0	7
26	3D Image Reconstructions and the Nyquist-Shannon Theorem. <i>3D Research</i> , 2015, 6, 1.	1.8	7
27	Simplified digital acquisition of microdischarge pulses. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2001, 8, 220-227.	2.9	6
28	Surface Roughness and Porosity of Hydrated Cement Pastes. <i>Acta Polytechnica</i> , 2011, 51, .	0.6	6
29	High-quality three-dimensional reconstruction and noise reduction of multifocal images from oversized samples. <i>Journal of Electronic Imaging</i> , 2015, 24, 053029.	0.9	6
30	Broken symmetry far from equilibrium in molecules within HF formalism. <i>Journal of Chemical Physics</i> , 1983, 78, 3339-3341.	3.0	5
31	Broken symmetry in valence molecular region within Hartree-Fock calculations. <i>Theoretica Chimica Acta</i> , 1984, 65, 127-137.	0.8	5
32	Rock joint coefficients and their computerized classification. <i>International Journal of Mining Science and Technology</i> , 2019, 29, 701-709.	10.3	5
33	Non-linear Temperature Profiles. <i>Acta Polytechnica</i> , 2001, 41, .	0.6	5
34	Ab initio SCF investigation of the core and inner valence electron binding and relaxation energies of the CH ₄ , C ₂ H ₂ and C ₂ H ₆ molecules. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1981, 24, 161-171.	1.7	4
35	Unconventional multifractal formalism and image analysis of natural fractals. <i>European Physical Journal D</i> , 1999, 49, 1445-1459.	0.4	4
36	Virtual emissivities of infrared thermometers. <i>Infrared Physics and Technology</i> , 2021, 114, 103656.	2.9	4

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37	Numerical study of heat losses of building walls containing reflective foils. <i>Indoor and Built Environment</i> , 2022, 31, 1932-1948.	2.8	4
38	Electron binding and relaxation energies of ethylene, ethane and of their hindered rotamers. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1981, 22, 87-91.	1.7	3
39	On the influence of measuring circuit on a DC partial-discharge repetition rate. <i>Journal Physics D: Applied Physics</i> , 1986, 19, 1491-1496.	2.8	3
40	Database 3D Surfaces for Evaluation of Joint Rock Coefficients. <i>Procedia Engineering</i> , 2016, 161, 1361-1366.	1.2	3
41	GENERAL MODEL OF RADIATIVE AND CONVECTIVE HEAT TRANSFER IN BUILDINGS: PART II: CONVECTIVE AND RADIATIVE HEAT LOSSES. <i>Acta Polytechnica</i> , 2019, 59, 224-237.	0.6	3
42	GENERAL MODEL OF RADIATIVE AND CONVECTIVE HEAT TRANSFER IN BUILDINGS: PART I: ALGEBRAIC MODEL OF RADIATIVE HEAT TRANSFER. <i>Acta Polytechnica</i> , 2019, 59, 211-223.	0.6	3
43	Strain gauge measurements within the school laboratory practice. <i>Strain</i> , 1992, 28, 39-44.	2.4	2
44	Normalized multifractal spectra within the box-counting method. <i>European Physical Journal D</i> , 2000, 50, 389-403.	0.4	2
45	A note on pareto statistics of partial microdischarge spots. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2004, 11, 136-138.	2.9	2
46	Fractal multiplication of electron avalanches and streamers: new mechanism of electrical breakdown?. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 7720-7733.	2.8	2
47	Roughness and fractality of fracture surfaces as indicators of mechanical quantities of porous solids. <i>Open Physics</i> , 2011, 9, .	1.7	2
48	Computer Evaluation of Asperity Topology of Rock Joints. <i>Procedia Earth and Planetary Science</i> , 2015, 15, 125-132.	0.6	2
49	Some remarks on the dynamical conformity of rock joints. <i>International Journal of Mining Science and Technology</i> , 2018, 28, 385-390.	10.3	2
50	The mass of growing multifractal clusters. <i>European Physical Journal D</i> , 1990, 40, 113-115.	0.4	1
51	Amplitude distribution statistics of acoustic emission signals. <i>Canadian Journal of Physics</i> , 1992, 70, 640-643.	1.1	1
52	A non-stationary method for the measurement of the thermal conductivity of solids in student laboratories. <i>European Journal of Physics</i> , 1996, 17, 307-310.	0.6	1
53	Electrostatic surface microdischarges and viscous fingering in liquid dielectrics. , 0, , .		1
54	Microdischarges Near Metal-Insulator Interfaces. <i>European Physical Journal D</i> , 2003, 53, 509-516.	0.4	1

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55	Streamer Spots on Dielectric Barriers. IEEE Transactions on Plasma Science, 2008, 36, 1310-1311.	1.3	1
56	A remark on nano-particle stability of cement C-S-H gel. Open Physics, 2011, 9, .	1.7	1
57	Fractal Analysis of Rock Joint Profiles. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032006.	0.6	1
58	Radiative Heat Transfer in Buildings. IOP Conference Series: Materials Science and Engineering, 2019, 603, 022029.	0.6	1
59	Radiosity Model and Compensation Theorem. IOP Conference Series: Materials Science and Engineering, 2019, 603, 022030.	0.6	1
60	Measurement of emissivity in student laboratories. European Journal of Physics, 2020, 41, 015101.	0.6	1
61	ROCK JOINT SURFACES AND THEIR CALIBRATION CURVES. , 2016, , .		1
62	Simplified Peltier heat pump. European Journal of Physics, 2022, 43, 045102.	0.6	1
63	Localized and delocalized molecular orbitals within the model of single-orbital relaxation energies. Chemical Physics Letters, 1981, 83, 578-581.	2.6	0
64	Outer valence broken-symmetry effects within HF calculations. Journal of Chemical Physics, 1984, 80, 3509-3510.	3.0	0
65	Fitting Function for Flexural Strength of Cement Paste. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032008.	0.6	0
66	Rock Joint Coefficients Derived from the Three-Dimensional Fourier Reliefs. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032005.	0.6	0
67	Macrodefects and Microdefects within Porous Cement Pastes. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032010.	0.6	0
68	Large Rock Reliefs and Their 3D Reconstructions. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032004.	0.6	0
69	Evaluation of Rock Joint Coefficients. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032007.	0.6	0
70	Rupture Strength and Irregularity of Fracture Surfaces. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032009.	0.6	0
71	Rock Joint Asperities and Mechanical Strength of Concrete. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032011.	0.6	0
72	Effect of Metallic Inclusions on the Compressive Strength of Cement-Based Materials. Advances in Materials Science and Engineering, 2018, 2018, 1-10.	1.8	0

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73	General Formalism for the Computation of Radiative Heat Transfer inside Buildings. IOP Conference Series: Materials Science and Engineering, 2019, 471, 062005.	0.6	0
74	Computations of Radiative Heat Transfer inside Buildings. IOP Conference Series: Materials Science and Engineering, 2019, 471, 062006.	0.6	0
75	Estimations of Radiative Heat Transfers in Enclosures. IOP Conference Series: Materials Science and Engineering, 2019, 603, 022031.	0.6	0
76	Heat Losses of Window Compact Shutters. IOP Conference Series: Materials Science and Engineering, 2020, 960, 022021.	0.6	0
77	Addendum: Measurement of emissivity in student laboratories (2020 Eur. J. Phys. 41 015101). European Journal of Physics, 2021, 42, 039401.	0.6	0
78	Electron Avalanche Statistics. Acta Physica Polonica A, 2009, 116, 1018-1020.	0.5	0
79	SHEAR STRENGTH OF ROCKS BY VISUAL ASSESSMENT. , 2011, , .		0
80	A theoretical investigation of electron relaxation accompanying core ionization in the symmetry forms of ethylene. Collection of Czechoslovak Chemical Communications, 1982, 47, 3371-3374.	1.0	0
81	THREE-DIMENSIONAL ROCK JOINTS AND THEIR TOPOLOGY ASSESSMENTS. , 2016, , .		0
82	A NUMERICAL TECHNIQUE FOR ASSESSING JOINT ROCK COEFFICIENTS. , 2017, , .		0
83	SELF-AFFINE ROCK JOINT PROFILES. , 2017, , .		0
84	A NEW METHOD FOR RECONSTRUCTIONS OF ROCK RELIEFS. , 2017, , .		0
85	FOURIER METHOD FOR EVALUATION OF IRREGULARITY OF ROCK JOINTS. , 2017, , .		0
86	Convective Heat Transfer Inside Planar Solar Collectors. IOP Conference Series: Materials Science and Engineering, 0, 960, 022020.	0.6	0