

Thomas Antretter

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/5524697/thomas-antretter-publications-by-year.pdf>

Version: 2024-04-29

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

86
papers

1,996
citations

20
h-index

43
g-index

101
ext. papers

2,282
ext. citations

3.4
avg. IF

4.75
L-index

#	Paper	IF	Citations
86	Towards electro-thermo-mechanical lifetime assessment for arbitrary power electronics. <i>Microelectronics Reliability</i> , 2022 , 133, 114537	1.2	0
85	Machine learning assisted calibration of a ductile fracture locus model. <i>Materials and Design</i> , 2021 , 203, 109604	8.1	1
84	Analysis of shape, orientation and interface properties of Mo ₂ C precipitates in Fe using ab-initio and finite element method calculations. <i>Acta Materialia</i> , 2021 , 204, 116478	8.4	3
83	Ductile failure modelling in pre-cracked solids using coupled fracture locus theory. <i>Engineering Fracture Mechanics</i> , 2021 , 252, 107845	4.2	0
82	Model-based Residual Stress Design in Multiphase Seamless Steel Tubes. <i>Materials</i> , 2020 , 13,	3.5	2
81	Coupled damage variable based on fracture locus: Modelling and calibration. <i>International Journal of Plasticity</i> , 2020 , 126, 102623	7.6	15
80	Coupled damage variable based on fracture locus: Prediction of ductile failure in a complex structure. <i>International Journal of Solids and Structures</i> , 2020 , 207, 132-144	3.1	4
79	Concepts for E-Assessments in STEM on the Example of Engineering Mechanics. <i>International Journal of Emerging Technologies in Learning</i> , 2020 , 15, 136	1.4	
78	Unification of the non-linear geometric transformation theory of martensite and crystal plasticity - Application to dislocated lath martensite in steels. <i>International Journal of Plasticity</i> , 2019 , 119, 140-155	7.6	7
77	Shot peening-induced plastic deformation of individual phases within a coated WC-Co hard metal composite material including stress-strain curves for WC as a function of temperature. <i>Surface and Coatings Technology</i> , 2019 , 380, 125026	4.4	9
76	Thermodynamic and mechanical stability of Ni ₃ X-type intermetallic compounds. <i>Intermetallics</i> , 2019 , 114, 106604	3.5	12
75	Cyclic heat-up and damage-relevant substrate plastification of single- and bilayer coated milling inserts evaluated numerically. <i>Surface and Coatings Technology</i> , 2019 , 360, 39-49	4.4	20
74	Residual stress and microstructure evolution in steel tubes for different cooling conditions □ Simulation and verification. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 747, 73-79	5.3	10
73	Deformation-induced phase transformation in a Co-Cr-W-Mo alloy studied by high-energy X-ray diffraction during in-situ compression tests. <i>Acta Materialia</i> , 2019 , 164, 272-282	8.4	15
72	Model free kinetics coupled with finite element method for curing simulation of thermosetting epoxy resins. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 46408	2.9	5
71	Crack arrest in thin metallic film stacks due to material- and residual stress inhomogeneities. <i>Thin Solid Films</i> , 2018 , 668, 14-22	2.2	10
70	An Energy Approach to Determine the Martensite Morphology in Nanocrystalline NiTi . <i>Advanced Engineering Materials</i> , 2017 , 19, 1600684	3.5	8

69	Numerical study of the influence of irradiation parameters on the microwave-induced stresses in granite. <i>Minerals Engineering</i> , 2017 , 103-104, 78-92	4.9	44
68	Transformation strains for bainitic variant evolution in steel. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2017 , 17, 587-588	0.2	
67	Experimental and theoretical evidence of displacive martensite in an intermetallic Mo-containing TiAl based alloy. <i>Acta Materialia</i> , 2016 , 115, 242-249	8.4	44
66	Free edges at bilayered compounds – short analytical and numerical reconsideration. <i>Archive of Applied Mechanics</i> , 2016 , 86, 2053-2061	2.2	2
65	Stress relaxation by power-law creep during growth of a misfitting precipitate. <i>International Journal of Solids and Structures</i> , 2016 , 96, 74-80	3.1	
64	Numerical simulation of the electrical performance of printed circuit boards under cyclic thermal loads. <i>Microelectronics Reliability</i> , 2016 , 62, 148-155	1.2	2
63	3D numerical study on microwave induced stresses in inhomogeneous hard rocks. <i>Minerals Engineering</i> , 2016 , 90, 29-42	4.9	47
62	Cyclic mechanical behavior of thin layers of copper: A theoretical and numerical study. <i>Journal of Strain Analysis for Engineering Design</i> , 2016 , 51, 161-169	1.3	1
61	Thermo-physical properties of selected hard rocks and their relation to microwave-assisted comminution. <i>Minerals Engineering</i> , 2016 , 91, 34-41	4.9	152
60	Calculation of crack driving forces of surface cracks subjected to rolling/sliding contact. <i>Engineering Fracture Mechanics</i> , 2016 , 152, 10-25	4.2	10
59	Numerical calibration of a yield limit function for rock materials by means of the Brazilian test and the uniaxial compression test. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2015 , 74, 24-29	6	5
58	Relaxation of a precipitate misfit stress state by creep in the matrix. <i>International Journal of Plasticity</i> , 2015 , 64, 164-176	7.6	12
57	Experimental characterization and modelling of triaxial residual stresses in straightened railway rails. <i>Journal of Strain Analysis for Engineering Design</i> , 2015 , 50, 190-198	1.3	15
56	Multi-scale modeling of bainitic phase transformation in multi-variant polycrystalline low alloy steels. <i>International Journal of Solids and Structures</i> , 2015 , 54, 156-171	3.1	12
55	Fracture mechanics of thin film systems on the sub-micron scale 2015 ,		1
54	Special cases of martensite compatibility: A near single-variant habit-plane and the martensite of nanocrystalline NiTi. <i>MATEC Web of Conferences</i> , 2015 , 33, 03015	0.3	1
53	Stress and Deflection Development During Die Embedding into Printed Circuit Boards. <i>Materials Today: Proceedings</i> , 2015 , 2, 4196-4205	1.4	5
52	An Inverse Finite Element Approach to Calculate Full-Field Forming Strains. <i>Key Engineering Materials</i> , 2015 , 651-653, 363-368	0.4	2

51	Size Effects in Residual Stress Formation during Quenching of Cylinders Made of Hot-Work Tool Steel. <i>Advances in Materials Science and Engineering</i> , 2015 , 2015, 1-7	1.5	4
50	Microwave propagation and absorption and its thermo-mechanical consequences in heterogeneous rocks. <i>International Journal of Mineral Processing</i> , 2015 , 135, 40-51		52
49	Comparison of Different Methods for Stress and Deflection Analysis in Embedded Die Packages During the Assembly Process. <i>Journal of Microelectronics and Electronic Packaging</i> , 2015 , 12, 80-85	0.9	5
48	The role of phase interface energy in martensitic transformations: A lattice Monte-Carlo simulation. <i>Mechanics Research Communications</i> , 2014 , 56, 37-41	2.2	3
47	Simulation of stress distribution in assembled silicon dies and deflection of printed circuit boards 2014 ,		2
46	Determination of cyclic mechanical properties of thin copper layers for PCB applications 2014 ,		2
45	Evaluation of the residual stress distribution in thin films by means of the ion beam layer removal method 2014 ,		1
44	Critical assessment of the determination of residual stress profiles in thin films by means of the ion beam layer removal method. <i>Thin Solid Films</i> , 2014 , 564, 321-330	2.2	42
43	Some Examples for Advanced Numerical Solutions Pushing the Limits of Commercial Software. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2013 , 158, 211-214	0.6	
42	Multi-physics simulation of the component attachment within embedding process 2013 ,		2
41	Transformation hardening and kinetics for stress assisted and temperature driven martensitic transformation in steels. <i>Mechanics Research Communications</i> , 2013 , 47, 84-88	2.2	2
40	An Efficient Algorithm for Modeling the Thermo-Mechanical Material Response of Heavy Steel Plates during Accelerated Cooling. <i>Key Engineering Materials</i> , 2013 , 554-557, 749-763	0.4	
39	On the Selection of Active Slip Systems in Rate Independent Crystal Plasticity. <i>Key Engineering Materials</i> , 2013 , 554-557, 1147-1156	0.4	
38	Simulation of the Roller Straightening Process with Respect to Residual Stresses and the Curvature Trend. <i>Materials Science Forum</i> , 2013 , 768-769, 456-463	0.4	9
37	Damage of basalt induced by microwave irradiation. <i>Minerals Engineering</i> , 2012 , 31, 82-89	4.9	59
36	A mean-field model for transformation induced plasticity including backstress effects for non-proportional loadings. <i>International Journal of Plasticity</i> , 2012 , 37, 53-71	7.6	33
35	Micromechanical modeling of bainitic phase transformation. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2012 , 12, 341-342	0.2	
34	Finite element modeling of the cyclic wetting mechanism in the active part of wheat awns. <i>Biointerphases</i> , 2012 , 7, 42	1.8	4

33	Thermo-Mechanical Behaviour of Dual-Phase Steels in Various Structural Morphologies: Experiments and Modelling. <i>Materials Science Forum</i> , 2012 , 706-709, 2072-2077	0.4	
32	Solution of a time-dependent heat conduction problem by an integral-equation approach. <i>Computational Materials Science</i> , 2012 , 52, 178-181	3.2	
31	Crystal orientation changes: A comparison between a crystal plasticity finite element study and experimental results. <i>Acta Materialia</i> , 2012 , 60, 2379-2386	8.4	24
30	A methodology to study crystal plasticity inside a compression test sample based on image correlation and EBSD. <i>Materials Characterization</i> , 2011 , 62, 793-800	3.9	17
29	Interaction of Heat Checks in Aluminum Pressure Casting Dies and their Effect on Fatigue Life. <i>Key Engineering Materials</i> , 2011 , 488-489, 626-629	0.4	1
28	The cyclic elasto-viscoplastic behavior of a high-speed steel under forging conditions - experiments and simulations. <i>Procedia Engineering</i> , 2011 , 10, 1991-1996		1
27	Study of nanometer-scaled lamellar microstructure in a Ti ₄₅ Al ₅₅ Nb alloy [Experiments and modeling. <i>Intermetallics</i> , 2010 , 18, 509-517	3.5	21
26	Modelling Transformation Induced Plasticity [An Application to Heavy Steel Plates. <i>Steel Research International</i> , 2010 , 81, 675-680	1.6	8
25	Phase Transformations of Nanocrystalline Martensitic Materials. <i>MRS Bulletin</i> , 2009 , 34, 814-821	3.2	111
24	Macro modelling and homogenization for transformation induced plasticity of a low-alloy steel. <i>International Journal of Plasticity</i> , 2009 , 25, 183-204	7.6	78
23	Deformation, stress state and thermodynamic force for a growing void in an elastic-plastic material. <i>International Journal of Plasticity</i> , 2009 , 25, 1819-1832	7.6	31
22	Size effects on martensitic phase transformations in nanocrystalline NiTi shape memory alloys. <i>Materials Science and Technology</i> , 2008 , 24, 934-940	1.5	111
21	Measurement of all Six Components of X-Ray Elastic Factors. <i>Materials Science Forum</i> , 2008 , 571-572, 225-229	0.4	3
20	Mechanics of sheared bands [Applications to faults, twins and variants. <i>Mechanics of Materials</i> , 2008 , 40, 195-205	3.3	10
19	Fracture of austenitic steel subject to a wide range of stress triaxiality ratios and crack deformation modes. <i>Engineering Fracture Mechanics</i> , 2008 , 75, 223-235	4.2	37
18	Finite element simulation of the effect of surface roughness on nanoindentation of thin films with spherical indenters. <i>Surface and Coatings Technology</i> , 2007 , 202, 1103-1107	4.4	69
17	Size effects on the martensitic phase transformation of NiTi nanograins. <i>Journal of the Mechanics and Physics of Solids</i> , 2007 , 55, 419-444	5	232
16	Calibration and Validation of an Elasto-Viscoplastic Material Model for a Hot Work Tool Steel Used in Pressure Casting Dies. <i>Key Engineering Materials</i> , 2007 , 345-346, 685-688	0.4	2

15	On the Algorithmic Implementation of a Material Model Accounting for the Effects of Martensitic Transformation. <i>Steel Research International</i> , 2006 , 77, 733-740	1.6	5
14	Effect of back stress evolution due to martensitic transformation on iso-volume fraction lines in a CrNiMoAlTi maraging steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 341, 189-196	5.3	18
13	Back stress evolution and iso-volume fraction lines in a CrNiMoAlTi maraging steel in the process of martensitic transformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002 , 336, 30-38	5.3	13
12	Simulation of the Damping of a Shape Memory Alloy Rod by Using the Likhachev Model. <i>Journal of Intelligent Material Systems and Structures</i> , 2002 , 13, 817-823	2.3	4
11	The Thermo-Mechanical Response to a General Loading Path of a Martensitically Transforming Steel. <i>Journal of Intelligent Material Systems and Structures</i> , 2002 , 13, 811-815	2.3	2
10	Theory, experiments and numerical modelling of phase transformations with emphasis on TRIP. <i>Steel Research = Archiv Für Das Eisenhüttenwesen</i> , 2002 , 73, 225-235		11
9	Diffusional phase transformation and deformation in steels. <i>Computational Materials Science</i> , 2002 , 25, 92-99	3.2	20
8	Mechanical properties of a CrNiMoAlTi maraging steel in the process of martensitic transformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 308, 25-37	5.3	43
7	The Susceptibility to Failure of the Constituents of Particulate Two-Phase Composites. <i>International Journal of Damage Mechanics</i> , 2001 , 10, 56-72	3	2
6	A new view on transformation induced plasticity (TRIP). <i>International Journal of Plasticity</i> , 2000 , 16, 723-748		385
5	Deformation Behavior of Elastic-Plastic Materials Containing Instantly Transforming Inclusions. <i>Key Engineering Materials</i> , 2000 , 177-180, 431-436	0.4	6
4	Hierarchical models for simulating the mechanical behavior of heterogeneous materials: an approach to high speed tool steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999 , 259, 73-84	5.3	6
3	Particle cleavage and ductile crack growth in a two-phase composite on a microscale. <i>Computational Materials Science</i> , 1998 , 13, 1-7	3.2	10
2	The stress state around two spatially arranged ellipsoidal inclusions [A case study for high-speed tool steel. <i>Computational Materials Science</i> , 1996 , 7, 247-252	3.2	16
1	Calibration and Validation of an Elasto-Viscoplastic Material Model for a Hot Work Tool Steel Used in Pressure Casting Dies. <i>Key Engineering Materials</i> , 685-688	0.4	2