Konstantin

List of Publications by Year
in descending order

116 papers	2,049 citations	186209 28 h-index	289141 40 g-index
128 all docs	128 docs citations	128 times ranked	717 citing authors

#	Article	IF	Citations
1	A layer-wise theory for laminated glass and photovoltaic panels. Composite Structures, 2014, 112, 283-291.	3.1	107
2	Analysis of laminated glass beams for photovoltaic applications. International Journal of Solids and Structures, 2012, 49, 2027-2036.	1.3	76
3	A micro-polar theory for binary media with application to phase-transitional flow of fiber suspensions. Continuum Mechanics and Thermodynamics, 2003, 15, 539-570.	1.4	69
4	A Combined Model for Hardening, Softening, and Damage Processes in Advanced Heat Resistant Steels at Elevated Temperature. International Journal of Damage Mechanics, 2011, 20, 578-597.	2.4	67
5	On the use of the first order shear deformation plate theory for the analysis of threeâ€layer plates with thin soft core layer. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2015, 95, 1004-1011.	0.9	65
6	A user-defined finite element for laminated glass panels and photovoltaic modules based on a layer-wise theory. Composite Structures, 2015, 133, 265-277.	3.1	56
7	Ebene FlÃchentragwerke. , 1998, , .		56
8	Creep analysis with a stress range dependent constitutive model. Archive of Applied Mechanics, 2009, 79, 619-630.	1.2	52
9	Modeling High Temperature Materials Behavior for Structural Analysis. Advanced Structured Materials, 2016, , .	0.3	48
10	Multi-axial thermo-mechanical analysis of power plant components from 9â€“12% Cr steels at high temperature. Engineering Fracture Mechanics, 2011, 78, 1657-1668.	2.0	45
11	Application of the first-order shear deformation theory to the analysis of laminated glasses and photovoltaic panels. International Journal of Mechanical Sciences, 2015, 96-97, 163-171.	3.6	45
12	Unsymmetric three-layer laminate with soft core for photovoltaic modules. Composite Structures, 2013, 105, 332-339.	3.1	44
13	Geometrically nonlinear bending of thin-walled shells and plates under creep-damage conditions. Archive of Applied Mechanics, 1997, 67, 339-352.	1.2	43
14	Closed and approximate analytical solutions for rectangular Mindlin plates. Acta Mechanica, 2001, 147, 153-172.	1.1	43
15	A phase mixture model for anisotropic creep of forged Alâ€“Cuâ€“Mgâ€“Si alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 618, 368-376.	2.6	40
16	Steady-state creep of a pressurized thick cylinder in both the linear and the power law ranges. Acta Mechanica, 2008, 195, 263-274.	1.1	39
17	Creep bending of thin-walled shells and plates by consideration of finite deflections. Computational Mechanics, 1997, 19, 490-495.	2.2	37
18	A layer-wise theory of shallow shells with thin soft core for laminated glass and photovoltaic applications. Composite Structures, 2017, 178, 434-446.	3.1	37

#	Article	IF	Citations
19	A phenomenological model for anisotropic creep in a multipass weld metal. Archive of Applied Mechanics, 2005, 74, 808-819.	1.2	33
20	Creep-damage predictions in thin-walled structures by use of isotropic and anisotropic damage models. Journal of Strain Analysis for Engineering Design, 2002, 37, 265-275.	1.0	32
21	Creep and Fatigue at Elevated Temperatures. Shear Correction Factors in Creep-Damage Analysis of Beams, Plates and Shells.. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2002, 45, 77-83.	0.4	32
22	Structural analysis of a power plant component using a stress-range-dependent creep-damage constitutive model. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 510-511, 169-174.	2.6	32
23	On the accuracy of creep-damage predictions in thinwalled structures using the finite element method. Computational Mechanics, 2000, 25, 87-98.	2.2	31
24	A multiscale projection approach for the coupled globalâ€"local structural analysis of photovoltaic modules. Composite Structures, 2016, 158, 340-358.	3.1	31
25	Ebene FlÃchentragwerke. , 2016, , .		31
26	Analysis of anisotropic damage in forged Alâ€"Cuâ€"Mgâ€"Si alloy based on creep tests, micrographs of fractured specimen and digital image correlations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 652, 175-185.	2.6	30
27	On the use of solid- and shell-type finite elements in creep-damage predictions of thinwalled structures. Archive of Applied Mechanics, 2001, 71, 164-181.	1.2	29
28	Influence of rotary inertia on the fiber dynamics in homogeneous creeping flows. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2007, 87, 81-93.	0.9	28
29	CREEP ANALYSIS FOR A WIDE STRESS RANGE BASED ON STRESS RELAXATION EXPERIMENTS. International Journal of Modern Physics B, 2008, 22, 5413-5418.	1.0	28
30	A relationship between effective work of adhesion and peel force for thin hyperelastic films undergoing large deformation. Mechanics Research Communications, 2015, 69, 24-26.	1.0	28
31	A constitutive model for inelastic behavior of casting materials under thermo-mechanical loading. Journal of Strain Analysis for Engineering Design, 2014, 49, 421-428.	1.0	27
32	Identifying tractionâ€"separation behavior of self-adhesive polymeric films from in situ digital images under T-peeling. Journal of the Mechanics and Physics of Solids, 2016, 91, 40-55.	2.3	26
33	A robust simulation of Direct Drive Friction Welding with a modified Carreau fluid constitutive model. Computer Methods in Applied Mechanics and Engineering, 2013, 265, 186-194.	3.4	24
34	Structural analysis of gas turbine blades made of Mo-Si-B under transient thermo-mechanical loads. Computational Materials Science, 2019, 165, 129-136.	1.4	23
35	Title is missing!. Mechanics of Composite Materials, 2003, 39, 221-234.	0.9	21
36	Calibration of a phase mixture model for hardening and softening regimes in tempered martensitic steel over wide stress and temperature ranges. Journal of Strain Analysis for Engineering Design, 2018, 53, 156-177.	1.0	21

#	Article	IF	Citations
37	A homogeneous substitute material for the core layer of photovoltaic composite structures. Composites Part B: Engineering, 2017, 112, 353-372.	5.9	18
38	Damage patterns in float glass plates: Experiments and peridynamics analysis. Theoretical and Applied Fracture Mechanics, 2022, 118, 103264.	2.1	18
39	On the Prediction of Creep Damage by Bending of Thin-Walled Structures. Mechanics of Time-Dependent Materials, 1997, 1, 181-193.	2.3	16
40	Robust Methods for Creep Fatigue Analysis of Power Plant Components Under Cyclic Transient Thermal Loading. , 2013, , .		15
41	Analysis of temperature and strain rate dependencies of softening regime for tempered martensitic steel. Journal of Strain Analysis for Engineering Design, 2017, 52, 226-238.	1.0	15
42	Rotation of a slender particle in a shear flow: influence of the rotary inertia and stability analysis. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2009, 89, 823-832.	0.9	14
43	Numerical implementation of a phase mixture model for rate-dependent inelasticity of tempered martensitic steels. Acta Mechanica, 2018, 229, 3051-3068.	1.1	14
44	Aspects of power law flow rules in crystal plasticity with glide-climb driven hardening and recovery. International Journal of Mechanical Sciences, 2018, 146-147, 486-496.	3.6	14
45	A non-linear direct peridynamics plate theory. Composite Structures, 2022, 279, 114728.	3.1	14
46	Modeling creep damage of an aluminumâ€“silicon eutectic alloy. International Journal of Damage Mechanics, 2013, 22, 683-698.	2.4	13
47	Mechanical behaviour of photovoltaic composite structures: Influence of geometric dimensions and material properties on the eigenfrequencies of mechanical vibrations. Composites Communications, 2017, 6, 59-62.	3.3	13
48	The potential of mechanical alloying to improve the strength and ductility of Moâ€“9Siâ€“8Bâ€“1Zr alloys â€“ experiments and simulation. Intermetallics, 2019, 113, 106558.	1.8	13
49	Micromechanical simulation of grain boundary cavitation in copper considering non-proportional loading. Computational Materials Science, 2015, 96, 178-184.	1.4	11
50	Rate dependent tension-compression-asymmetry of Ti-61.8at%Al alloy with long period superstructures at 1050 Â°C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 700, 503-511.	2.6	11
51	Mechanical behaviour of photovoltaic composite structures: A parameter study on the influence of geometric dimensions and material properties under static loading. Composites Communications, 2017, 5, 23-26.	3.3	11
52	Zum Kriechen dÃ¼nner Rotationsschalen unter Einbeziehung geometrischer NichtlinearitÃt sowie der Asymmetrie der Werkstoffeigenschaften. Forschung Im Ingenieurwesen/Engineering Research, 1996, 62, 47-57.	1.0	10
53	A note on transversely-isotropic invariants. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2006, 86, 162-168.	0.9	10
54	Coupling of a structural analysis and flow simulation for short-fiber-reinforced polymers: property prediction and transfer of results. Mechanics of Composite Materials, 2009, 45, 249-256.	0.9	9

#	Article	IF	Citations
55	Inelastic deformation of conductive bodies in electromagnetic fields. Continuum Mechanics and Thermodynamics, 2016, 28, 1421-1433.	1.4	9
56	Two-time-scales and time-averaging approaches for the analysis of cyclic creep based on Armstrongâ€"Frederick type constitutive model. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2019, 233, 1690-1700.	1.1	9
57	Stress-regime-dependence of inelastic anisotropy in forged age-hardening aluminium alloys at elevated temperature: Constitutive modeling, identification and validation. Mechanics of Materials, 2020, 141, 103262.	1.7	9
58	Consideration of Non-uniform and Non-orthogonal Mechanical Loads for Structural Analysis of Photovoltaic Composite Structures. Advanced Structured Materials, 2017, , 73-122.	0.3	9
59	Analysis of iron aluminide coated beams under creep conditions in high-temperature four-point bending tests. Journal of Strain Analysis for Engineering Design, 2018, 53, 255-265.	1.0	8
60	Mechanical Models and Finite-Element Approaches for the Structural Analysis of Photovoltaic Composite Structures: a Comparative Study. Mechanics of Composite Materials, 2018, 54, 415-430.	0.9	8
61	Temperature Resistance of Mo3Si: Phase Stability, Microhardness, and Creep Properties. Metals, 2021, 11, 564.	1.0	8
62	Experimental analysis and constitutive modeling of anisotropic creep damage in a wrought age-hardenable Al alloy. Engineering Fracture Mechanics, 2022, 259, 108119.	2.0	8
63	On thermal strains and residual stresses in the linear theory of antiâ€sandwiches. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2019, 99, e201900062.	0.9	7
64	Cyclic Creep Damage in Thin-Walled Structures. Journal of Strain Analysis for Engineering Design, 2000, 35, 1-11.	1.0	7
65	Analyse des Kriechverhaltens dÃ¼nner Schalen und Platten unter zyklischen Belastungen. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 1995, 75, 507-514.	0.9	6
66	Creep Behavior Modeling of Polyoxymethylene (POM) Applying Rheological Models. Advanced Structured Materials, 2015, , 1-15.	0.3	6
67	Modeling High Temperature Materials Behavior for Structural Analysis. Advanced Structured Materials, 2019, , .	0.3	6
68	Identification of traction-separation curves for self-adhesive polymeric films based on non-linear theory of beams and digital images of T-peeling. Composite Structures, 2019, 216, 222-227.	3.1	6
69	Power Plant Component Design Using Creep-Damage Analysis. , 2006, , .		6
70	Strength analysis of laminated glass/EVA interfaces: Microstructure, peel force and energy of adhesion. Composite Structures, 2022, 297, 115940.	3.1	6
71	Conservation laws and prediction methods for stress concentration fields. Acta Mechanica, 2011, 218, 349-355.	1.1	5
72	Experimental identification of flow properties of a S355 structural steel for hot deformation processes. Journal of Strain Analysis for Engineering Design, 2015, 50, 75-83.	1.0	5

#	Article	IF	Citations
73	Critical stresses estimation by crystal viscoplasticity modeling of rate-dependent anisotropy of Al-rich TiAl alloys at high temperature. Archive of Applied Mechanics, 2018, 88, 65-81.	1.2	5
74	A Variationally Consistent Derivation of Microcontinuum Theories. Advanced Structured Materials, 2011, , 571-584.	0.3	5
75	Some analytical solutions to peridynamic beam equations. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2022, 102, .	0.9	5
76	Prediction of Accumulation of Technological Stresses in a Pipeline Upon its Repair by a Composite Band. Mechanics of Composite Materials, 2015, 51, 139-156.	0.9	4
77	A direct approach to evaluate interaction forces between self-adhesive polymeric films subjected to T-peeling. Archive of Applied Mechanics, 2021, 91, 629-641.	1.2	4
78	Subclasses of Mechanical Problems Arising from the Direct Approach for Homogeneous Plates. Advanced Structured Materials, 2019, , 43-63.	0.3	4
79	Steady-state creep analysis of pressurized pipe weldments by perturbation method. International Journal of Solids and Structures, 2006, 43, 6908-6920.	1.3	3
80	Micromechanical creep model for pure copper. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 419-420.	0.2	3
81	Homogenisation approach in analysis of creep behaviour in multipass weld. Materials Science and Technology, 2014, 30, 50-53.	0.8	3
82	A Damage Mechanics Based Cohesive Zone Model with Damage Gradient Extension for Creep-Fatigue-Interaction. Key Engineering Materials, 2019, 794, 253-259.	0.4	3
83	Inelastic Behavior of Polyoxymethylene for Wide Strain Rate and Temperature Ranges: Constitutive Modeling and Identification. Materials, 2021, 14, 3667.	1.3	3
84	Closed-form quaternion representations for rigid body rotation: application to error assessment in orientation algorithms of strapdown inertial navigation systems. Continuum Mechanics and Thermodynamics, 2021, 33, 1141-1160.	1.4	3
85	A System of Ordinary and Partial Differential Equations Describing Creep Behaviour of Thin-Walled Shells. Zeitschrift Fur Analysis Und Ihre Anwendung, 1999, 18, 1003-1030.	0.8	2
86	Analysis of Inelastic Behavior for High Temperature Materials and Structures. Advanced Structured Materials, 2015, , 241-298.	0.3	2
87	Consideration of damage in the analysis of autofrettage of thick-walled pressure vessels. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 3585-3593.	1.1	2
88	Prediction of Stress Relaxation in Power Plant Components Based on a Constitutive Model. , 2017, , .		2
89	Reviewing the class of Al-rich Ti-Al alloys: modeling high temperature plastic anisotropy and asymmetry. Mechanics of Advanced Materials and Modern Processes, 2017, 3, .	2.2	2
90	Adaption of a Carreau fluid law formulation for residual stress determination in rotary friction welds. Journal of Materials Processing Technology, 2018, 252, 567-572.	3.1	2

#	Article	IF	Citations
91	Implementation of a Phase Mixture Model for Rateâ€Dependent Inelasticity. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800200.	0.2	2
92	Analysis of a Power Plant Rotor Made of Tempered Martensitic Steel Based on a Composite Model of Inelastic Deformation. Advanced Structured Materials, 2020, , 1-34.	0.3	2
93	Fracture Mechanics Characterisation of Peelfilms. Springer Series in Materials Science, 2017, , 271-281.	0.4	2
94	Constitutive Models of Creep. Foundations in Engineering Mechanics, 2007, , 17-84.	0.0	2
95	Long Term Creep Analysis of Pipe Bends in a Steam Transfer Line at Elevated Temperature. Key Engineering Materials, 2007, 340-341, 795-802.	0.4	1
96	Inelastic analysis versus simplified rules for stress concentration fields under variable loading and high temperature. Materials Research Innovations, 2011, 15, s205-s208.	1.0	1
97	On the Choice of the Power Law Flow Rule and its Consequences in Crystal Plasticity. Key Engineering Materials, 0, 725, 359-365.	0.4	1
98	Constitutive Models. Advanced Structured Materials, 2016, , 173-282.	0.3	1
99	Plates and Shells. Advanced Structured Materials, 2019, , 169-206.	0.3	1
100	Plane Stress and Plane Strain Problems. Advanced Structured Materials, 2019, , 137-167.	0.3	1
101	Dynamics of Curved Laminated Glass Composite Panels Under Impact Loading. Advanced Structured Materials, 2021, , 91-101.	0.3	1
102	CREEP ANALYSIS FOR A WIDE STRESS RANGE BASED ON STRESS RELAXATION EXPERIMENTS. , 2009, , .		1
103	Structural Analysis of Gas Turbine Blades Made of Mo-Si-B Under Stationary Thermo-Mechanical Loads. Advanced Structured Materials, 2020, , 79-91.	0.3	1
104	Heat Transfer Analysis in the Strapdown Inertial Unit of the Navigation System. Advanced Structured Materials, 2020, , 119-133.	0.3	1
105	Analysis of Casting Materials under Thermal Fatigue. Applied Mechanics and Materials, 0, 784, 95-103.	0.2	0
106	Continuum Mechanics in One Dimension. Advanced Structured Materials, 2016, , 79-90.	0.3	0
107	Elementary Uni-axial Constitutive Models. Advanced Structured Materials, 2016, , 91-140.	0.3	0
108	Three-Dimensional Continuum Mechanics. Advanced Structured Materials, 2016, , 141-171.	0.3	0

#	Article	IF	Citations
109	Examples of Constitutive Equations for Various Materials. Advanced Structured Materials, 2016, , 283-322.	0.3	0
110	On the Models of Three-Layered Plates and Shells with Thin Soft Core. Advanced Structured Materials, 2017, , 159-171.	0.3	0
111	Angular Velocities, Twirls, Spins and Rotation Tensors in the Continuum Mechanics Revisited. Advanced Structured Materials, 2018, , 621-632.	0.3	0
112	Beams. Advanced Structured Materials, 2019, , 97-136.	0.3	0
113	Bars and Bar Systems. Advanced Structured Materials, 2019, , 1-52.	0.3	0
114	Initial-Boundary Value Problems and Solution Procedures. Advanced Structured Materials, 2019, , 53-95.	0.3	0
115	Thermoâ€Mechanical Analysis of a Steam Turbine rotor. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900361.	0.2	0
116	Direkte Formulierung von Theorien fÃ¼r ebene FlÃchentragwerke. , 2016, , 437-469.		0