Benoit Revil-Baudard

List of Publications by Year
in descending order

66	688	567144 15	580701 25
papers	citations	h-index	g-index

73	73	73	429
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modeling bending of Î±-titanium with embedded polycrystal plasticity in implicit finite elements. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 564, 116-126.	2.6	153
2	Combined effects of anisotropy and tensionâ€“compression asymmetry on the torsional response of AZ31 Mg. International Journal of Solids and Structures, 2015, 58, 190-200.	1.3	48
3	On the Combined Effect of Pressure and Third Invariant on Yielding of Porous Solids With von Mises Matrix. Journal of Applied Mechanics, Transactions ASME, 2013, 80, .	1.1	39
4	Correlation between swift effects and tensionâ€“compression asymmetry in various polycrystalline materials. Journal of the Mechanics and Physics of Solids, 2014, 70, 104-115.	2.3	33
5	Plastic deformation of high-purity Î±-titanium: Model development and validation using the Taylor cylinder impact test. Mechanics of Materials, 2015, 80, 264-275.	1.7	33
6	New analytical criterion for porous solids with Tresca matrix under axisymmetric loadings. International Journal of Solids and Structures, 2014, 51, 861-874.	1.3	31
7	Unusual plastic deformation and damage features in titanium: Experimental tests and constitutive modeling. Journal of the Mechanics and Physics of Solids, 2016, 88, 100-122.	2.3	27
8	Plasticity-Damage Couplings: From Single Crystal to Polycrystalline Materials. Solid Mechanics and Its Applications, 2019, , .	0.1	23
9	New interpretation of monotonic Swift effects: Role of tensionâ€“compression asymmetry. Mechanics of Materials, 2013, 57, 42-52.	1.7	20
10	A yield criterion for cubic single crystals. International Journal of Solids and Structures, 2018, 151, 9-19.	1.3	18
11	Analysis of ESAFORM 2021 cup drawing benchmark of an Al alloy, critical factors for accuracy and efficiency of FE simulations. International Journal of Material Forming, 2022, 15, .	0.9	18
12	On the effect of the matrix tensionâ€“compression asymmetry on damage evolution in porous plastic solids. European Journal of Mechanics, A/Solids, 2013, 37, 35-44.	2.1	17
13	New three-dimensional strain-rate potentials for isotropic porous metals: Role of the plastic flow of the matrix. International Journal of Plasticity, 2014, 60, 101-117.	4.1	17
14	High strain-rate plastic deformation of molybdenum: Experimental investigation, constitutive modeling and validation using impact tests. International Journal of Impact Engineering, 2016, 96, 116-128.	2.4	17
15	Importance of the coupling between the sign of the mean stress and the third invariant on the rate of void growth and collapse in porous solids with a von Mises matrix. Modelling and Simulation in Materials Science and Engineering, 2014, 22, 025005.	0.8	15
16	Effect of the yield stresses in uniaxial tension and pure shear on the size of the plastic zone near a crack. International Journal of Plasticity, 2018, 102, 101-117.	4.1	15
17	New analytic criterion for porous solids with pressure-insensitive matrix. International Journal of Plasticity, 2017, 89, 66-84.	4.1	14
18	Room-temperature plastic behavior and formability of a commercially pure titanium: Mechanical characterization, modeling, and validation. International Journal of Solids and Structures, 2021, 228, 111121.	1.3	14

#	Article	IF	Citations
19	Effect of stress triaxiality on porosity evolution in notched bars: Quantitative agreement between a recent dilatational model and X-ray tomography data. Mechanics Research Communications, 2013, 50, 77-82.	1.0	12
20	Role of the plastic flow of the matrix on yielding and void evolution of porous solids: Comparison between the theoretical response of porous solids with Tresca and von Mises matrices. Mechanics Research Communications, 2014, 56, 69-75.	1.0	11
21	Plastic deformation of polycrystalline molybdenum: Experimental data and macroscopic model accounting for its anisotropy and tensionâ€“compression asymmetry. International Journal of Solids and Structures, 2015, 75-76, 287-298.	1.3	10
22	Prediction of plastic anisotropy of textured polycrystalline sheets using a new single-crystal model. Comptes Rendus - Mecanique, 2018, 346, 756-769.	2.1	10
23	Implementation of an Evolving non Quadratic Anisotropic Behaviour for the Closed Packed Materials. , 2010, , .		9
24	Importance of the consideration of the specificities of local plastic deformation on the response of porous solids with Tresca matrix. European Journal of Mechanics, A/Solids, 2014, 47, 194-205.	2.1	8
25	New interpretation of cyclic Swift effects. European Journal of Mechanics, A/Solids, 2014, 44, 82-90.	2.1	8
26	Modeling the effect of notch geometry on the deformation of a strongly anisotropic aluminum alloy. European Journal of Mechanics, A/Solids, 2020, 82, 104004.	2.1	8
27	Analytical expressions for the yield stress and Lankford coefficients of polycrystalline sheets based on a new single crystal model. International Journal of Material Forming, 2018, 11, 571-581.	0.9	7
28	Simulation du comportement mÃ©canique des alliages de titane pour les procÃ©dÃ©s de mise en forme Ã froid de produits plats. Mecanique Et Industries, 2010, 11, 265-270.	0.2	6
29	A model for creep of porous crystals with cubic symmetry. International Journal of Solids and Structures, 2017, 110-111, 67-79.	1.3	6
30	Tension-compression asymmetry effects on the plastic response in bending: new theoretical and numerical results. Mechanics Research Communications, 2021, 114, 103596.	1.0	6
31	Experimental Characterization and Modeling of the Anisotropy and Tensionâ€“Compression Asymmetry of Polycrystalline Molybdenum for Strain Rates Ranging from Quasi-static to Impact. Jom, 2015, 67, 2635-2641.	0.9	5
32	New three-dimensional plastic potentials for porous solids with a von Mises matrix. Comptes Rendus - Mecanique, 2015, 343, 77-94.	2.1	4
33	New polycrystalline modeling as applied to textured steel sheets. Mechanics Research Communications, 2017, 84, 98-101.	1.0	3
34	Forming of Materials with Cubic Crystal Structure. Procedia Manufacturing, 2020, 47, 1300-1307.	1.9	3
35	Forming of titanium materials. , 2021, , 479-537.		3
36	Dynamic response of polycrystalline high energetic systems: Constitutive modeling and application to impact. Journal of Applied Physics, 2022, 131, .	1.1	3

#	Article	IF	Citations
37	Plastic deformation of high-purity a-titanium: model development and validation using the Taylor cylinder impact test. Journal of Physics: Conference Series, 2016, 734, 032048.	0.3	2
38	Prediction of strain distribution and four, six, or eight ears depending on single-crystal orientation using a new single crystal criterion. International Journal of Material Forming, 2019, 12, 943-954.	0.9	2
39	On the influence of damage evolution in an incompressible material with matrix displaying tension-compression asymmetry. Procedia IUTAM, 2012, 3, 331-349.	1.2	1
40	New Analytical Criterion for Porous Solids with Tresca Matrix. , 2014, 3, 1412-1417.		1
41	Constitutive modeling of a commercially pure titanium: validation using bulge tests. Journal of Physics: Conference Series, 2016, 734, 032057.	0.3	1
42	Prediction of the torsional response of HCP metals. Journal of Physics: Conference Series, 2018, 1063, 012045.	0.3	1
43	Plastic deformation of metallic materials during dynamic events. Journal of Physics: Conference Series, 2018, 1063, 012054.	0.3	1
44	Yield Criteria for Anisotropic Polycrystals. Solid Mechanics and Its Applications, 2019, , 201-288.	0.1	1
45	Anisotropic Plastic Potentials for Porous Metallic Materials. Solid Mechanics and Its Applications, 2019, , 503-581.	0.1	1
46	Plastic Deformation of Single Crystals. Solid Mechanics and Its Applications, 2019, , 61-139.	0.1	1
47	Simulation of the anisotropic behavior of titanium alloys during sheet metal forming. International Journal of Material Forming, 2009, 2, 73-76.	0.9	0
48	Plasticity-damage couplings in titanium. , 2013, , .		0
49	On Modeling Plasticity-damage Couplings in Polycrystalline Materials. , 2014, 3, 1423-1428.		0
50	Constitutive modeling and simulation at room-temperature deformation and failure of polycrystalline Molybdenum. Journal of Physics: Conference Series, 2016, 734, 032110.	0.3	0
51	Constitutive modelling of plastic deformation and damage in anisotropic high-purity titanium and validation using ex-situ and in-situ tomography data. Journal of Physics: Conference Series, 2016, 734, 032052.	0.3	0
52	New Yield Criterion for Description of Plastic Deformation of Face-Centered Cubic Single Crystals. Minerals, Metals and Materials Series, 2017, , 393-398.	0.3	0
53	New analytic criterion for FCC single crystals. Procedia Engineering, 2017, 207, 2113-2118.	1.2	0
54	Prediction of Anisotropy of Textured Sheets Based on a New Polycrystal Model. Procedia Engineering, 2017, 207, 239-244.	1.2	0

#	Article	IF	Citations
55	Prediction of four, six or eight ears in drawn cups of single-crystal aluminum sheets. Journal of Physics: Conference Series, 2018, 1063, 012055.	0.3	0
56	Response to the letter to editor. International Journal of Material Forming, 2020, 13, 855-860.	0.9	0
57	Yield criteria for anisotropic materials. , 2021, , 115-208.		0
58	Yield criteria for isotropic materials. , 2021, , 37-114.		0
59	Experimental characterization and modeling of metallic materials with cubic crystal structure. , 2021, , 209-263.		0
60	Experimental characterization and modeling of metallic materials with hexagonal closed-packed structure. , 2021, , 265-310.		0
61	Numerical investigation into the dynamic behavior of sands. Mechanics Research Communications, 2021, 114, 103664.	1.0	0
62	Elastic/plastic behavior of metallic materials in torsion and bending. , 2021, , 311-424.		0
63	Constitutive Equations for Elasticâ€“Plastic Materials. Solid Mechanics and Its Applications, 2019, , 37-60.	0.1	0
64	Yield Criteria for Isotropic Polycrystals. Solid Mechanics and Its Applications, 2019, , 141-200.	0.1	0
65	Plastic Potentials for Isotropic Porous Materials: Influence of the Particularities of Plastic Deformation on Damage Evolution. Solid Mechanics and Its Applications, 2019, , 337-502.	0.1	0
66	Effects of anisotropy on dynamic void collapse and temperature rise in low-symmetry crystals. Mechanics Research Communications, 2022, 124, 103931.	1.0	0