

# Benoit Revil-Baudard

## List of Publications by Year in Descending Order

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

68

papers

530

citations

12

h-index

21

g-index

73

ext. papers

596

ext. citations

2.3

avg, IF

4.13

L-index

#	Paper	IF	Citations
68	Dynamic response of polycrystalline high energetic systems: Constitutive modeling and application to impact. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 145101	2.5	1
67	Numerical investigation into the dynamic behavior of sands. <i>Mechanics Research Communications</i> , <b>2021</b> , 114, 103664	2.2	
66	Tension-compression asymmetry effects on the plastic response in bending: new theoretical and numerical results. <i>Mechanics Research Communications</i> , <b>2021</b> , 114, 103596	2.2	2
65	Yield criteria for anisotropic materials <b>2021</b> , 115-208		
64	Yield criteria for isotropic materials <b>2021</b> , 37-114		
63	Forming of titanium materials <b>2021</b> , 479-537		0
62	Experimental characterization and modeling of metallic materials with cubic crystal structure <b>2021</b> , 209-263		
61	Experimental characterization and modeling of metallic materials with hexagonal closed-packed structure <b>2021</b> , 265-310		
60	Room-temperature plastic behavior and formability of a commercially pure titanium: Mechanical characterization, modeling, and validation. <i>International Journal of Solids and Structures</i> , <b>2021</b> , 228, 111121	3.7	2
59	Elastic/plastic behavior of metallic materials in torsion and bending <b>2021</b> , 311-424		
58	Forming of Materials with Cubic Crystal Structure. <i>Procedia Manufacturing</i> , <b>2020</b> , 47, 1300-1307	1.5	2
57	Modeling the effect of notch geometry on the deformation of a strongly anisotropic aluminum alloy. <i>European Journal of Mechanics, A/Solids</i> , <b>2020</b> , 82, 104004	3.7	5
56	Response to the letter to editor. <i>International Journal of Material Forming</i> , <b>2020</b> , 13, 855-860	2	
55	Prediction of strain distribution and four, six, or eight ears depending on single-crystal orientation using a new single crystal criterion. <i>International Journal of Material Forming</i> , <b>2019</b> , 12, 943-954	2	2
54	Plastic Deformation of Single Crystals. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> , 61-139	0.4	1
53	Constitutive Equations for Elastic-Plastic Materials. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> , 37-60	0.4	
52	Yield Criteria for Isotropic Polycrystals. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> , 141-200	0.4	

51	Mathematical Framework. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> , 1-35	0.4	
50	Strain-Rate-Based Plastic Potentials for Polycrystalline Materials. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> , 289-335	0.4	
49	Plastic Potentials for Isotropic Porous Materials: Influence of the Particularities of Plastic Deformation on Damage Evolution. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> , 337-502	0.4	
48	Plasticity-Damage Couplings: From Single Crystal to Polycrystalline Materials. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> ,	0.4	11
47	Yield Criteria for Anisotropic Polycrystals. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> , 201-288	0.4	1
46	Anisotropic Plastic Potentials for Porous Metallic Materials. <i>Solid Mechanics and Its Applications</i> , <b>2019</b> , 503-581	0.4	1
45	Effect of the yield stresses in uniaxial tension and pure shear on the size of the plastic zone near a crack. <i>International Journal of Plasticity</i> , <b>2018</b> , 102, 101-117	7.6	10
44	A yield criterion for cubic single crystals. <i>International Journal of Solids and Structures</i> , <b>2018</b> , 151, 9-19	3.1	12
43	Analytical expressions for the yield stress and Lankford coefficients of polycrystalline sheets based on a new single crystal model. <i>International Journal of Material Forming</i> , <b>2018</b> , 11, 571-581	2	5
42	Prediction of plastic anisotropy of textured polycrystalline sheets using a new single-crystal model. <i>Comptes Rendus - Mecanique</i> , <b>2018</b> , 346, 756-769	2.1	5
41	Prediction of the torsional response of HCP metals. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 1063, 012045	0.3	1
40	Prediction of four, six or eight ears in drawn cups of single-crystal aluminum sheets. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 1063, 012055	0.3	
39	Plastic deformation of metallic materials during dynamic events. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 1063, 012054	0.3	1
38	A model for creep of porous crystals with cubic symmetry. <i>International Journal of Solids and Structures</i> , <b>2017</b> , 110-111, 67-79	3.1	4
37	New Yield Criterion for Description of Plastic Deformation of Face-Centered Cubic Single Crystals. <i>Minerals, Metals and Materials Series</i> , <b>2017</b> , 393-398	0.3	
36	New polycrystalline modeling as applied to textured steel sheets. <i>Mechanics Research Communications</i> , <b>2017</b> , 84, 98-101	2.2	2
35	New analytic criterion for porous solids with pressure-insensitive matrix. <i>International Journal of Plasticity</i> , <b>2017</b> , 89, 66-84	7.6	11
34	New analytic criterion for FCC single crystals. <i>Procedia Engineering</i> , <b>2017</b> , 207, 2113-2118		

33	Prediction of Anisotropy of Textured Sheets Based on a New Polycrystal Model. <i>Procedia Engineering</i> , <b>2017</b> , 207, 239-244		
32	On Modeling the Mechanical Behavior and Texture Evolution of Rolled AZ31 Mg for Complex Loadings Involving Strain Path Changes <b>2016</b> , 245-250		1
31	High strain-rate plastic deformation of molybdenum: Experimental investigation, constitutive modeling and validation using impact tests. <i>International Journal of Impact Engineering</i> , <b>2016</b> , 96, 116-128	4	13
30	Unusual plastic deformation and damage features in titanium: Experimental tests and constitutive modeling. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2016</b> , 88, 100-122	5	20
29	Constitutive modeling and simulation at room-temperature deformation and failure of polycrystalline Molybdenum. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 734, 032110		0.3
28	Constitutive modeling of a commercially pure titanium: validation using bulge tests. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 734, 032057		0.3 1
27	Constitutive modelling of plastic deformation and damage in anisotropic high-purity titanium and validation using ex-situ and in-situ tomography data. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 734, 032052		0.3
26	Plastic deformation of high-purity $\alpha$ -titanium: model development and validation using the Taylor cylinder impact test. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 734, 032048		0.3 2
25	Plastic deformation of polycrystalline molybdenum: Experimental data and macroscopic model accounting for its anisotropy and tension/compression asymmetry. <i>International Journal of Solids and Structures</i> , <b>2015</b> , 75-76, 287-298	3.1	8
24	Experimental Characterization and Modeling of the Anisotropy and Tension/Compression Asymmetry of Polycrystalline Molybdenum for Strain Rates Ranging from Quasi-static to Impact. <i>Jom</i> , <b>2015</b> , 67, 2635-2641	2.1	5
23	Plastic deformation of high-purity $\beta$ -titanium: Model development and validation using the Taylor cylinder impact test. <i>Mechanics of Materials</i> , <b>2015</b> , 80, 264-275	3.3	27
22	New Model Predicting the Unusual Buckling Behavior of AZ31 Mg <b>2015</b> , 151-157		
21	Combined effects of anisotropy and tension/compression asymmetry on the torsional response of AZ31 Mg. <i>International Journal of Solids and Structures</i> , <b>2015</b> , 58, 190-200	3.1	38
20	New three-dimensional plastic potentials for porous solids with a von Mises matrix. <i>Comptes Rendus - Mecanique</i> , <b>2015</b> , 343, 77-94	2.1	4
19	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. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2014</b> , 22, 025005	2	12
18	On Modeling Plasticity-damage Couplings in Polycrystalline Materials <b>2014</b> , 3, 1423-1428		
17	New Analytical Criterion for Porous Solids with Tresca Matrix <b>2014</b> , 3, 1412-1417		1
16	New interpretation of cyclic Swift effects. <i>European Journal of Mechanics, A/Solids</i> , <b>2014</b> , 44, 82-90	3.7	8

15	Correlation between swift effects and tension-compression asymmetry in various polycrystalline materials. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2014</b> , 70, 104-115	5	28
14	New three-dimensional strain-rate potentials for isotropic porous metals: Role of the plastic flow of the matrix. <i>International Journal of Plasticity</i> , <b>2014</b> , 60, 101-117	7.6	16
13	Importance of the consideration of the specificities of local plastic deformation on the response of porous solids with Tresca matrix. <i>European Journal of Mechanics, A/Solids</i> , <b>2014</b> , 47, 194-205	3.7	7
12	New analytical criterion for porous solids with Tresca matrix under axisymmetric loadings. <i>International Journal of Solids and Structures</i> , <b>2014</b> , 51, 861-874	3.1	29
11	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. <i>Mechanics Research Communications</i> , <b>2014</b> , 56, 69-75	2.2	9
10	On the effect of the matrix tension-compression asymmetry on damage evolution in porous plastic solids. <i>European Journal of Mechanics, A/Solids</i> , <b>2013</b> , 37, 35-44	3.7	17
9	Effect of stress triaxiality on porosity evolution in notched bars: Quantitative agreement between a recent dilatational model and X-ray tomography data. <i>Mechanics Research Communications</i> , <b>2013</b> , 50, 77-82	2.2	10
8	Modeling bending of Titanium with embedded polycrystal plasticity in implicit finite elements. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 564, 116-126	5.3	133
7	New interpretation of monotonic Swift effects: Role of tension-compression asymmetry. <i>Mechanics of Materials</i> , <b>2013</b> , 57, 42-52	3.3	16
6	On the Combined Effect of Pressure and Third Invariant on Yielding of Porous Solids With von Mises Matrix. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2013</b> , 80,	2.7	37
5	On the influence of damage evolution in an incompressible material with matrix displaying tension-compression asymmetry. <i>Procedia IUTAM</i> , <b>2012</b> , 3, 331-349		1
4	Simulation du comportement mécanique des alliages de titane pour les procédés de mise en forme à froid de produits plats. <i>Mecanique Et Industries</i> , <b>2010</b> , 11, 265-270		6
3	Simulation of the anisotropic behavior of titanium alloys during sheet metal forming. <i>International Journal of Material Forming</i> , <b>2009</b> , 2, 73-76	2	
2	Plastic Deformation of Pure Polycrystalline Molybdenum 143-175		
1	Role of the Plastic Flow of the Matrix on Yielding and Void Evolution of Porous Solids 573-580		