

Alexis Rusinek

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121
papers

2,659
citations

30
h-index

47
g-index

125
ext. papers

3,099
ext. citations

3.1
avg. IF

5.44
L-index

#	Paper	IF	Citations
121	Shear testing of a sheet steel at wide range of strain rates and a constitutive relation with strain-rate and temperature dependence of the flow stress. <i>International Journal of Plasticity</i> , 2001 , 17, 87-115	7.6	171
120	Experiments on heat generated during plastic deformation and stored energy for TRIP steels. <i>Materials & Design</i> , 2009 , 30, 35-48		138
119	Mechanical impact behavior of polyetheretherketone (PEEK). <i>Composite Structures</i> , 2015 , 124, 88-99	5.3	97
118	A thermo-viscoplastic constitutive model for FCC metals with application to OFHC copper. <i>International Journal of Mechanical Sciences</i> , 2010 , 52, 120-135	5.5	84
117	Constitutive relations in 3-D for a wide range of strain rates and temperatures [Application to mild steels. <i>International Journal of Solids and Structures</i> , 2007 , 44, 5611-5634	3.1	84
116	Investigation of mechanical impact behavior of short carbon-fiber-reinforced PEEK composites. <i>Composite Structures</i> , 2015 , 133, 1116-1126	5.3	71
115	Influence of strain rate, temperature and adiabatic heating on the mechanical behaviour of poly-methyl-methacrylate: Experimental and modelling analyses. <i>Materials & Design</i> , 2012 , 37, 500-509		70
114	Numerical simulations of impact behaviour of thin steel plates subjected to cylindrical, conical and hemispherical non-deformable projectiles. <i>Engineering Fracture Mechanics</i> , 2008 , 75, 1635-1656	4.2	70
113	The cohesive element approach to dynamic fragmentation: the question of energy convergence. <i>International Journal for Numerical Methods in Engineering</i> , 2007 , 69, 484-503	2.4	69
112	Thermo-viscoplastic constitutive relation for aluminium alloys, modeling of negative strain rate sensitivity and viscous drag effects. <i>Materials & Design</i> , 2009 , 30, 4377-4390		68
111	Experimental and numerical study on the perforation process of mild steel sheets subjected to perpendicular impact by hemispherical projectiles. <i>International Journal of Impact Engineering</i> , 2009 , 36, 565-587	4	66
110	The influence of plastic instabilities on the mechanical properties of a high-manganese austenitic FeMnC steel. <i>International Journal of Materials Research</i> , 2008 , 99, 734-738	0.5	64
109	A constitutive model for analyzing martensite formation in austenitic steels deforming at high strain rates. <i>International Journal of Plasticity</i> , 2012 , 29, 77-101	7.6	61
108	Analysis of inertia and scale effects on dynamic neck formation during tension of sheet steel. <i>Acta Materialia</i> , 2005 , 53, 5387-5387	8.4	58
107	Influence of projectile shape on dynamic behavior of steel sheet subjected to impact and perforation. <i>Thin-Walled Structures</i> , 2013 , 65, 93-104	4.7	57
106	Finite element simulation of steel ring fragmentation under radial expansion. <i>International Journal of Impact Engineering</i> , 2007 , 34, 799-822	4	54
105	Modelling of thermo-viscoplastic behaviour of DH-36 and Weldox 460-E structural steels at wide ranges of strain rates and temperatures, comparison of constitutive relations for impact problems. <i>Mechanics of Materials</i> , 2009 , 41, 599-621	3.3	52

104	Influence of conical projectile diameter on perpendicular impact of thin steel plate. <i>Engineering Fracture Mechanics</i> , 2008 , 75, 2946-2967	4.2	51
103	Analysis of thermo-visco-plastic behaviour of six high strength steels. <i>Materials & Design</i> , 2009 , 30, 1748-1761		49
102	Experimental study on the martensitic transformation in AISI 304 steel sheets subjected to tension under wide ranges of strain rate at room temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 5974-5982	5.3	47
101	Low temperature effect on impact energy absorption capability of PEEK composites. <i>Composite Structures</i> , 2015 , 134, 440-449	5.3	42
100	Experimental Study on the Perforation Process of 5754-H111 and 6082-T6 Aluminium Plates Subjected to Normal Impact by Conical, Hemispherical and Blunt Projectiles. <i>Experimental Mechanics</i> , 2014 , 54, 729-742	2.6	42
99	Validation of the KlepaczkoMalinowski model for friction correction and recommendations on Split Hopkinson Pressure Bar. <i>Finite Elements in Analysis and Design</i> , 2011 , 47, 1191-1208	2.2	42
98	Residual Stresses in Orthogonal Cutting of Metals: The Effect of Thermomechanical Coupling Parameters and of Friction. <i>Journal of Thermal Stresses</i> , 2009 , 32, 269-289	2.2	42
97	Experimental and numerical analysis of the martensitic transformation in AISI 304 steel sheets subjected to perforation by conical and hemispherical projectiles. <i>International Journal of Solids and Structures</i> , 2013 , 50, 339-351	3.1	39
96	Influence of interfacial friction and specimen configuration in Split Hopkinson Pressure Bar system. <i>Tribology International</i> , 2015 , 90, 1-14	4.9	35
95	Compressive Viscoplastic Response of 6082-T6 and 7075-T6 Aluminium Alloys Under Wide Range of Strain Rate at Room Temperature: Experiments and Modelling. <i>Strain</i> , 2012 , 48, 498-509	1.7	34
94	A model to describe the high rate performance of self-piercing riveted joints in sheet aluminium. <i>Materials & Design</i> , 2011 , 32, 2246-2259		31
93	Effect of plastic deformation and boundary conditions combined with elastic wave propagation on the collapse site of a crash box. <i>Thin-Walled Structures</i> , 2008 , 46, 1143-1163	4.7	31
92	A numerical analysis of the dynamic behaviour of sheet steel perforated by a conical projectile under ballistic conditions. <i>Finite Elements in Analysis and Design</i> , 2013 , 65, 39-49	2.2	30
91	Perforation mechanics of 2024 aluminium protective plates subjected to impact by different nose shapes of projectiles. <i>Thin-Walled Structures</i> , 2018 , 123, 1-10	4.7	30
90	Thick AA7020-T651 plates under ballistic impact of fragment-simulating projectiles. <i>International Journal of Impact Engineering</i> , 2015 , 86, 336-353	4	29
89	Experimental study of the confined behaviour of PMMA under quasi-static and dynamic loadings. <i>International Journal of Impact Engineering</i> , 2012 , 40-41, 46-57	4	29
88	Effect of projectile nose shape on ballistic resistance of interstitial-free steel sheets. <i>International Journal of Impact Engineering</i> , 2015 , 79, 83-94	4	26
87	A dislocation-based constitutive description for modeling the behavior of FCC metals within wide ranges of strain rate and temperature. <i>Mechanics of Materials</i> , 2011 , 43, 901-912	3.3	26

86	Internal variable modeling of the high strain-rate behavior of metals with applications to multiphase steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 478, 297-304	5.3	25
85	Influence of Stress State on the Mechanical Impact and Deformation Behaviors of Aluminum Alloys. <i>Metals</i> , 2018 , 8, 520	2.3	24
84	Constitutive model for metals with dynamic strain aging. <i>Mechanics of Materials</i> , 2019 , 129, 352-360	3.3	24
83	Thermo-viscoplastic behaviour of 2024-T3 aluminium sheets subjected to low velocity perforation at different temperatures. <i>Thin-Walled Structures</i> , 2011 , 49, 819-832	4.7	23
82	Experimental survey on the behaviour of AISI 304 steel sheets subjected to perforation. <i>Thin-Walled Structures</i> , 2010 , 48, 966-978	4.7	22
81	Investigations on the Mechanical Response of Gradient Lattice Structures Manufactured via SLM. <i>Metals</i> , 2020 , 10, 213	2.3	21
80	Constitutive relation for steels approximating quasi-static and intermediate strain rates at large deformations. <i>Mechanics Research Communications</i> , 2009 , 36, 419-427	2.2	19
79	Thermo-mechanical behaviour of TRIP 1000 steel sheets subjected to low velocity perforation by conical projectiles at different temperatures. <i>International Journal of Solids and Structures</i> , 2010 , 47, 1268-1284	3.1	19
78	Experimental study on puncture of PMMA at low and high velocities, effect on the failure mode. <i>Polymer Testing</i> , 2004 , 23, 703-718	4.5	18
77	Temperature measurements on ES steel sheets subjected to perforation by hemispherical projectiles. <i>International Journal of Impact Engineering</i> , 2010 , 37, 828-841	4	17
76	Effects of Strain Rate and Identification of Material Constants for Three Automotive Steels. <i>Steel Research International</i> , 2007 , 78, 348-358	1.6	17
75	Constitutive Modeling of Metals Based on the Evolution of the Strain-Hardening Rate. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2007 , 129, 550-558	1.8	17
74	Thermo-viscoplastic behavior of 304 austenitic stainless steel at various strain rates and temperatures: Testing, modeling and validation. <i>International Journal of Mechanical Sciences</i> , 2020 , 170, 105356	5.5	17
73	New devices to capture the temperature effect under dynamic compression and impact perforation of polymers, application to PMMA. <i>Polymer Testing</i> , 2018 , 65, 1-9	4.5	17
72	Dynamic behaviour of high-strength sheet steel in dynamic tension: Experimental and numerical analyses. <i>Journal of Strain Analysis for Engineering Design</i> , 2008 , 43, 37-53	1.3	16
71	Experimental and numerical analysis of the aluminum alloy AW5005 behavior subjected to tension and perforation under dynamic loading. <i>Journal of Theoretical and Applied Mechanics</i> , 1219	1.3	16
70	A Device Enhancement for the Dry Sliding Friction Coefficient Measurement Between Steel 1080 and VascoMax with Respect to Surface Roughness Changes. <i>Experimental Mechanics</i> , 2011 , 51, 337-358	2.6	15
69	Plastic deformation due to reflected detonation. <i>International Journal of Solids and Structures</i> , 2013 , 50, 97-110	3.1	14

68	Out-of-plane crushing response of aluminum honeycombs in-situ filled with graphene-reinforced polyurethane foam. <i>Composite Structures</i> , 2020 , 249, 112548	5.3	13
67	Material and structural behaviour of PMMA from low temperatures to over the glass transition: Quasi-static and dynamic loading. <i>Polymer Testing</i> , 2020 , 81, 106263	4.5	13
66	Conductive 3D printed PLA composites: On the interplay of mechanical, electrical and thermal behaviours. <i>Composite Structures</i> , 2021 , 265, 113744	5.3	13
65	Ballistic behavior of steel sheet subjected to impact and perforation. <i>Steel and Composite Structures</i> , 2014 , 16, 595-609		12
64	Constitutive Models for Dynamic Strain Aging in Metals: Strain Rate and Temperature Dependences on the Flow Stress. <i>Materials</i> , 2020 , 13,	3.5	11
63	Numerical modelling of orthogonal cutting: Influence of cutting conditions and separation criterion. <i>European Physical Journal Special Topics</i> , 2006 , 134, 417-422		11
62	Material Behavior Description for a Large Range of Strain Rates from Low to High Temperatures: Application to High Strength Steel. <i>Metals</i> , 2018 , 8, 795	2.3	11
61	Development of an experimental set-up for dynamic force measurements during impact and perforation, coupling to numerical simulations. <i>International Journal of Impact Engineering</i> , 2016 , 91, 102-115	4	10
60	Analysis of friction influence on material deformation under biaxial compression state. <i>Tribology International</i> , 2014 , 80, 14-24	4.9	10
59	Dynamic Behavior of Aluminum Alloy Aw 5005 Undergoing Interfacial Friction and Specimen Configuration in Split Hopkinson Pressure Bar System at High Strain Rates and Temperatures. <i>Materials</i> , 2020 , 13,	3.5	10
58	A novel technique for dynamic shear testing of bulk metals with application to 304 austenitic stainless steel. <i>International Journal of Solids and Structures</i> , 2020 , 204-205, 153-171	3.1	10
57	Strain rate effect on the mechanical behavior of polyamide composites under compression loading. <i>Composite Structures</i> , 2019 , 214, 114-122	5.3	9
56	Taylor's Test Technique for Dynamic Characterization of Materials: Application to Brass. <i>Experimental Techniques</i> , 2016 , 40, 347-355	1.4	9
55	Experimental study of brass properties through perforation tests using a thermal chamber for elevated temperatures. <i>Latin American Journal of Solids and Structures</i> , 2018 , 15,	1.4	9
54	Blast-Induced Compression of a Thin-Walled Aluminum Honeycomb Structure Experiment and Modeling. <i>Metals</i> , 2019 , 9, 1350	2.3	8
53	Development of the Dynamic Compaction Resistance Sintering (DCRS): A new process for powder consolidation combining electric current and dynamic loading. <i>Journal of Materials Processing Technology</i> , 2015 , 216, 447-454	5.3	7
52	Effect of powder bed fusion laser melting process parameters, build orientation and strut thickness on porosity, accuracy and tensile properties of an auxetic structure in IN718 alloy. <i>Additive Manufacturing</i> , 2020 , 36, 101339	6.1	7
51	Thermo-Viscoplastic Behavior of Ni-Based Superalloy Haynes 282 and Its Application to Machining Simulation. <i>Metals</i> , 2017 , 7, 561	2.3	7

50	The dynamic behavior of poly (methyl methacrylate) based nano-rubbers subjected to impact and perforation: Experimental investigations. <i>Mechanics of Materials</i> , 2018 , 122, 9-25	3.3	7
49	Extension of R ₀ constitutive relation to phase transformation phenomena. <i>Materials & Design</i> , 2009 , 30, 2513-2520		7
48	Influence of the strain path on crash properties of a crash-box structure by experimental and numerical approaches. <i>European Physical Journal Special Topics</i> , 2006 , 134, 1287-1293		7
47	A study of friction between composite-steel surfaces at high impact velocities. <i>Tribology International</i> , 2016 , 102, 38-43	4.9	7
46	Perforation Tests of Aluminum Alloy Specimens for a Wide Range of Temperatures Using High-Performance Thermal Chamber - Experimental and Numerical Analysis. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 491, 012027	0.4	6
45	Postmortem Analysis Using Different Sensors and Technologies on Aramid Composites Samples after Ballistic Impact. <i>Sensors</i> , 2020 , 20,	3.8	6
44	Modeling and Design of SHPB to Characterize Brittle Materials Under Compression for High Strain Rates. <i>Materials</i> , 2020 , 13,	3.5	6
43	Material Characterization of PMC/TBC Composite Under High Strain Rates and Elevated Temperatures. <i>Materials</i> , 2020 , 13,	3.5	6
42	Perforation Behavior of 304 Stainless Steel Plates at Various Temperatures. <i>Journal of Dynamic Behavior of Materials</i> , 2019 , 5, 416-431	1.8	6
41	Perforation tests of composite structure specimens at wide range of temperatures and strain rates-experimental analysis. <i>Materials Today: Proceedings</i> , 2020 , 24, 7-10	1.4	6
40	Simple shear behavior and constitutive modeling of 304 stainless steel over a wide range of strain rates and temperatures. <i>International Journal of Impact Engineering</i> , 2021 , 154, 103896	4	6
39	Low temperature mechanical behaviour of PVDF: cryogenic pre-treatment, quasi-static, cyclic and dynamic experimental testing and modelling. <i>Mechanics of Materials</i> , 2020 , 147, 103436	3.3	5
38	Plastic Response of Thin-Walled Tubes to Detonation 2010 ,		5
37	Measurement of temperature coupling by thermovision and constitutive relation at high strain rates for the dual phase sheet steel. <i>European Physical Journal Special Topics</i> , 2003 , 110, 411-416		5
36	Numerical analysis for optimizing the determination of dynamic friction coefficient. <i>Tribology International</i> , 2016 , 95, 86-94	4.9	4
35	Finite element simulation for analysing experimental friction tests under severe conditions. <i>Finite Elements in Analysis and Design</i> , 2014 , 85, 50-58	2.2	4
34	Comments on paper: Glass damage by impact spallation by A. Nyoungue et al., <i>Materials Science and Engineering A</i> 407 (2005) 256-264. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 564, 206-212	5.3	4
33	Temperature increment during quasi-static compression tests using Mg metallic alloys. <i>Materials & Design</i> , 2010 , 31, 3259-3269		4

32	Simple shear behavior of 2024-T351 aluminum alloy over a wide range of strain rates and temperatures: Experiments and constitutive modeling. <i>International Journal of Impact Engineering</i> , 2021 , 156, 103972	4	4
31	Effect of Severe Plastic Deformation by 120 deg ECAP or Shock Impact on 6061 Aluminum Alloy at High Strain Rates. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2018 , 140,	1.8	3
30	Verification of a Thermoviscoplastic Constitutive Relation for Brass Material Using Taylor's Test. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2015 , 137,	1.8	3
29	Deformation Mode Dependency on Strain Rate Sensitivity of Volume Resistivity in TRIP Steel. <i>Key Engineering Materials</i> , 2013 , 535-536, 473-476	0.4	3
28	Plasticity of New Steels Used in Automotive Industries - Temperature Measurements by Thermo-Vision 2005 ,		3
27	Characterization of the Mechanical Behavior of a Lead Alloy, from Quasi-Static to Dynamic Loading for a Wide Range of Temperatures. <i>Materials</i> , 2020 , 13,	3.5	3
26	Mechanical Properties of Brass under Impact and Perforation Tests for a Wide Range of Temperatures: Experimental and Numerical Approach. <i>Materials</i> , 2020 , 13,	3.5	3
25	Comportement viscoplastique des tûes en traction et cisaillement. Analyse de la vitesse d'impact critique. <i>Materiaux Et Techniques</i> , 1999 , 87, 41-52	0.6	3
24	Analyse thermographique de l'vation de tempature dans un acier trip 800 au cours de la dformation plastique. <i>Materiaux Et Techniques</i> , 2004 , 92, 21-30	0.6	3
23	Experimental Study and Modelling of Poly (Methyl Methacrylate) and Polycarbonate Compressive Behavior from Low to High Strain Rates. <i>Journal of Dynamic Behavior of Materials</i> , 2018 , 4, 179-189	1.8	2
22	A Study on Reduction of Friction in Impact Compressive Test Based on the Split Hopkinson Pressure Bar Method by Using a Hollow Specimen. <i>Applied Mechanics and Materials</i> , 2014 , 566, 548-553	0.3	2
21	A numerical study on the wave propagation in tensile and perforation test. <i>European Physical Journal Special Topics</i> , 2000 , 10, Pr9-653-Pr9-658		2
20	Protocol to define material behaviour and failure strain level at low and high strain rates based on compression test. <i>Journal of Theoretical and Applied Mechanics</i> , 471	1.3	2
19	Analysis of the strain induced martensitic transformation in austenitic steel subjected to dynamic perforation. <i>EPJ Web of Conferences</i> , 2012 , 26, 04036	0.3	2
18	The Influence of Temperature in the Al 2024-T3 Aluminum Plates Subjected to Impact: Experimental and Numerical Approaches. <i>Materials</i> , 2021 , 14,	3.5	2
17	An experimental method of measuring the quasi-static and dynamic confined behaviour of PMMA. <i>EPJ Web of Conferences</i> , 2010 , 6, 39009	0.3	1
16	Dynamic Behavior of Materials. Constitutive Relations and Applications. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2014 , 87-135	0.6	1
15	Machinability of INCONEL718 Alloy with a Porous Microstructure Produced by Laser Melting Powder Bed Fusion at Higher Energy Densities. <i>Materials</i> , 2020 , 13,	3.5	1

14	The SHPB tests for GFRP composites subjected to three levels of strain rates. <i>Materials Today: Proceedings</i> , 2021 , 45, 4275-4279	1.4	1
13	Dynamic perforation and compression tests of PMMA for a wide range of temperatures - experimental and preliminary numerical analysis. <i>EPJ Web of Conferences</i> , 2018 , 183, 02055	0.3	1
12	Energy absorption analysis of aramid composite during blunt projectile impact. <i>Mechanics of Advanced Materials and Structures</i> , 1-12	1.8	1
11	Thermo-viscoplastic behavior and constitutive relations for 304 austenitic stainless steel over a wide range of strain rates covering quasi-static, medium, high and very high regimes. <i>International Journal of Impact Engineering</i> , 2022 , 164, 104208	4	1
10	Thermo-viscoplastic behavior of DP800 steel at quasi-static, intermediate, high and ultra-high strain rates. <i>International Journal of Mechanical Sciences</i> , 2022 , 226, 107408	5.5	1
9	The DCRS: Dynamic compaction resistance sintering. A flash sintering process with a dynamic loading ability. <i>EPJ Web of Conferences</i> , 2012 , 26, 01036	0.3	
8	Shear Failure of Ti-6Al-4V by Direct Impact and Analyse of the Process of Elastic and Plastic Wave Propagation 2006 , 511-512		
7	Effect of a Quasi-Static Prestrain on Subsequent Dynamic Tensile Curves 2007 , 735-736		
6	Geometric Scale Effect in Dynamic Tension Tests, a Numerical Analysis 2007 , 733-734		
5	Experimental analysis of the aluminum alloy sheet subjected to impact and perforation process. <i>Materials Today: Proceedings</i> , 2021 , 36, 88-93	1.4	
4	Numerical and experimental study on mechanical behaviour of the AlSi10Mg aluminium structures manufactured additively and subjected to a blast wave. <i>EPJ Web of Conferences</i> , 2021 , 250, 02017	0.3	
3	Dynamic testing and simulation of 9 mm full metal jacket ammunition. <i>EPJ Web of Conferences</i> , 2021 , 250, 05002	0.3	
2	Mechanical behaviour modelling under dynamic conditions: Application to structural and high strength steels. <i>EPJ Web of Conferences</i> , 2018 , 183, 01056	0.3	
1	Material definition to design vehicle components, application to crashworthiness 2018 , 63		