

# Alexis Rusinek

## 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.

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	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> , <b>2022</b> , 164, 104208	4	1
120	Thermo-viscoplastic behavior of DP800 steel at quasi-static, intermediate, high and ultra-high strain rates. <i>International Journal of Mechanical Sciences</i> , <b>2022</b> , 226, 107408	5.5	1
119	Conductive 3D printed PLA composites: On the interplay of mechanical, electrical and thermal behaviours. <i>Composite Structures</i> , <b>2021</b> , 265, 113744	5.3	13
118	Experimental analysis of the aluminum alloy sheet subjected to impact and perforation process. <i>Materials Today: Proceedings</i> , <b>2021</b> , 36, 88-93	1.4	
117	The SHPB tests for GFRP composites subjected to three levels of strain rates. <i>Materials Today: Proceedings</i> , <b>2021</b> , 45, 4275-4279	1.4	1
116	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> , <b>2021</b> , 250, 02017	0.3	
115	Dynamic testing and simulation of 9 mm full metal jacket ammunition. <i>EPJ Web of Conferences</i> , <b>2021</b> , 250, 05002	0.3	
114	The Influence of Temperature in the Al 2024-T3 Aluminum Plates Subjected to Impact: Experimental and Numerical Approaches. <i>Materials</i> , <b>2021</b> , 14,	3.5	2
113	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> , <b>2021</b> , 154, 103896	4	6
112	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> , <b>2021</b> , 156, 103972	4	4
111	Postmortem Analysis Using Different Sensors and Technologies on Aramid Composites Samples after Ballistic Impact. <i>Sensors</i> , <b>2020</b> , 20,	3.8	6
110	Low temperature mechanical behaviour of PVDF: cryogenic pre-treatment, quasi-static, cyclic and dynamic experimental testing and modelling. <i>Mechanics of Materials</i> , <b>2020</b> , 147, 103436	3.3	5
109	Modeling and Design of SHPB to Characterize Brittle Materials Under Compression for High Strain Rates. <i>Materials</i> , <b>2020</b> , 13,	3.5	6
108	Out-of-plane crushing response of aluminum honeycombs in-situ filled with graphene-reinforced polyurethane foam. <i>Composite Structures</i> , <b>2020</b> , 249, 112548	5.3	13
107	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> , <b>2020</b> , 36, 101339	6.1	7
106	Investigations on the Mechanical Response of Gradient Lattice Structures Manufactured via SLM. <i>Metals</i> , <b>2020</b> , 10, 213	2.3	21
105	Material Characterization of PMC/TBC Composite Under High Strain Rates and Elevated Temperatures. <i>Materials</i> , <b>2020</b> , 13,	3.5	6

104	Constitutive Models for Dynamic Strain Aging in Metals: Strain Rate and Temperature Dependences on the Flow Stress. <i>Materials</i> , <b>2020</b> , 13,	3.5	11
103	Characterization of the Mechanical Behavior of a Lead Alloy, from Quasi-Static to Dynamic Loading for a Wide Range of Temperatures. <i>Materials</i> , <b>2020</b> , 13,	3.5	3
102	Mechanical Properties of Brass under Impact and Perforation Tests for a Wide Range of Temperatures: Experimental and Numerical Approach. <i>Materials</i> , <b>2020</b> , 13,	3.5	3
101	Perforation tests of composite structure specimens at wide range of temperatures and strain rates-experimental analysis. <i>Materials Today: Proceedings</i> , <b>2020</b> , 24, 7-10	1.4	6
100	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> , <b>2020</b> , 170, 105356	5.5	17
99	Material and structural behaviour of PMMA from low temperatures to over the glass transition: Quasi-static and dynamic loading. <i>Polymer Testing</i> , <b>2020</b> , 81, 106263	4.5	13
98	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> , <b>2020</b> , 13,	3.5	10
97	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> , <b>2020</b> , 204-205, 153-171	3.1	10
96	Machinability of INCONEL718 Alloy with a Porous Microstructure Produced by Laser Melting Powder Bed Fusion at Higher Energy Densities. <i>Materials</i> , <b>2020</b> , 13,	3.5	1
95	Strain rate effect on the mechanical behavior of polyamide composites under compression loading. <i>Composite Structures</i> , <b>2019</b> , 214, 114-122	5.3	9
94	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> , <b>2019</b> , 491, 012027	0.4	6
93	Perforation Behavior of 304 Stainless Steel Plates at Various Temperatures. <i>Journal of Dynamic Behavior of Materials</i> , <b>2019</b> , 5, 416-431	1.8	6
92	Blast-Induced Compression of a Thin-Walled Aluminum Honeycomb Structure Experiment and Modeling. <i>Metals</i> , <b>2019</b> , 9, 1350	2.3	8
91	Constitutive model for metals with dynamic strain aging. <i>Mechanics of Materials</i> , <b>2019</b> , 129, 352-360	3.3	24
90	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> , <b>2018</b> , 4, 179-189	1.8	2
89	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> , <b>2018</b> , 140,	1.8	3
88	The dynamic behavior of poly (methyl methacrylate) based nano-rubbers subjected to impact and perforation: Experimental investigations. <i>Mechanics of Materials</i> , <b>2018</b> , 122, 9-25	3.3	7
87	Influence of Stress State on the Mechanical Impact and Deformation Behaviors of Aluminum Alloys. <i>Metals</i> , <b>2018</b> , 8, 520	2.3	24

86	New devices to capture the temperature effect under dynamic compression and impact perforation of polymers, application to PMMA. <i>Polymer Testing</i> , <b>2018</b> , 65, 1-9	4.5	17
85	Perforation mechanics of 2024 aluminium protective plates subjected to impact by different nose shapes of projectiles. <i>Thin-Walled Structures</i> , <b>2018</b> , 123, 1-10	4.7	30
84	Experimental study of brass properties through perforation tests using a thermal chamber for elevated temperatures. <i>Latin American Journal of Solids and Structures</i> , <b>2018</b> , 15,	1.4	9
83	Mechanical behaviour modelling under dynamic conditions: Application to structural and high strength steels. <i>EPJ Web of Conferences</i> , <b>2018</b> , 183, 01056	0.3	
82	Dynamic perforation and compression tests of PMMA for a wide range of temperatures - experimental and preliminary numerical analysis. <i>EPJ Web of Conferences</i> , <b>2018</b> , 183, 02055	0.3	1
81	Material Behavior Description for a Large Range of Strain Rates from Low to High Temperatures: Application to High Strength Steel. <i>Metals</i> , <b>2018</b> , 8, 795	2.3	11
80	Material definition to design vehicle components, application to crashworthiness <b>2018</b> , 63		
79	Thermo-Viscoplastic Behavior of Ni-Based Superalloy Haynes 282 and Its Application to Machining Simulation. <i>Metals</i> , <b>2017</b> , 7, 561	2.3	7
78	Taylor's Test Technique for Dynamic Characterization of Materials: Application to Brass. <i>Experimental Techniques</i> , <b>2016</b> , 40, 347-355	1.4	9
77	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> , <b>2016</b> , 91, 102-115	4	10
76	Numerical analysis for optimizing the determination of dynamic friction coefficient. <i>Tribology International</i> , <b>2016</b> , 95, 86-94	4.9	4
75	A study of friction between composite-steel surfaces at high impact velocities. <i>Tribology International</i> , <b>2016</b> , 102, 38-43	4.9	7
74	Influence of interfacial friction and specimen configuration in Split Hopkinson Pressure Bar system. <i>Tribology International</i> , <b>2015</b> , 90, 1-14	4.9	35
73	Thick AA7020-T651 plates under ballistic impact of fragment-simulating projectiles. <i>International Journal of Impact Engineering</i> , <b>2015</b> , 86, 336-353	4	29
72	Investigation of mechanical impact behavior of short carbon-fiber-reinforced PEEK composites. <i>Composite Structures</i> , <b>2015</b> , 133, 1116-1126	5.3	71
71	Low temperature effect on impact energy absorption capability of PEEK composites. <i>Composite Structures</i> , <b>2015</b> , 134, 440-449	5.3	42
70	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> , <b>2015</b> , 216, 447-454	5.3	7
69	Verification of a Thermo-viscoplastic Constitutive Relation for Brass Material Using Taylor's Test. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2015</b> , 137,	1.8	3

68	Effect of projectile nose shape on ballistic resistance of interstitial-free steel sheets. <i>International Journal of Impact Engineering</i> , <b>2015</b> , 79, 83-94	4	26
67	Mechanical impact behavior of polyether ether ketone (PEEK). <i>Composite Structures</i> , <b>2015</b> , 124, 88-99	5.3	97
66	Finite element simulation for analysing experimental friction tests under severe conditions. <i>Finite Elements in Analysis and Design</i> , <b>2014</b> , 85, 50-58	2.2	4
65	Analysis of friction influence on material deformation under biaxial compression state. <i>Tribology International</i> , <b>2014</b> , 80, 14-24	4.9	10
64	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> , <b>2014</b> , 566, 548-553	0.3	2
63	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> , <b>2014</b> , 54, 729-742	2.6	42
62	Ballistic behavior of steel sheet subjected to impact and perforation. <i>Steel and Composite Structures</i> , <b>2014</b> , 16, 595-609		12
61	Dynamic Behavior of Materials. Constitutive Relations and Applications. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , <b>2014</b> , 87-135	0.6	1
60	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 &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 564, 206-212	5.3	4
59	Influence of projectile shape on dynamic behavior of steel sheet subjected to impact and perforation. <i>Thin-Walled Structures</i> , <b>2013</b> , 65, 93-104	4.7	57
58	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> , <b>2013</b> , 50, 339-351	3.1	39
57	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> , <b>2013</b> , 65, 39-49	2.2	30
56	Plastic deformation due to reflected detonation. <i>International Journal of Solids and Structures</i> , <b>2013</b> , 50, 97-110	3.1	14
55	Deformation Mode Dependency on Strain Rate Sensitivity of Volume Resistivity in TRIP Steel. <i>Key Engineering Materials</i> , <b>2013</b> , 535-536, 473-476	0.4	3
54	Experimental study of the confined behaviour of PMMA under quasi-static and dynamic loadings. <i>International Journal of Impact Engineering</i> , <b>2012</b> , 40-41, 46-57	4	29
53	A constitutive model for analyzing martensite formation in austenitic steels deforming at high strain rates. <i>International Journal of Plasticity</i> , <b>2012</b> , 29, 77-101	7.6	61
52	Influence of strain rate, temperature and adiabatic heating on the mechanical behaviour of poly-methyl-methacrylate: Experimental and modelling analyses. <i>Materials &amp; Design</i> , <b>2012</b> , 37, 500-509		70
51	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> , <b>2012</b> , 48, 498-509	1.7	34

50	The DCRS: Dynamic compaction resistance sintering. A flash sintering process with a dynamic loading ability. <i>EPJ Web of Conferences</i> , <b>2012</b> , 26, 01036	0.3	
49	Analysis of the strain induced martensitic transformation in austenitic steel subjected to dynamic perforation. <i>EPJ Web of Conferences</i> , <b>2012</b> , 26, 04036	0.3	2
48	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> , <b>2011</b> , 43, 901-912	3.3	26
47	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 &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2011</b> , 528, 5974-5982	5.3	47
46	Validation of the Klepaczko-Malinowski model for friction correction and recommendations on Split Hopkinson Pressure Bar. <i>Finite Elements in Analysis and Design</i> , <b>2011</b> , 47, 1191-1208	2.2	42
45	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> , <b>2011</b> , 51, 337-358	2.6	15
44	A model to describe the high rate performance of self-piercing riveted joints in sheet aluminium. <i>Materials &amp; Design</i> , <b>2011</b> , 32, 2246-2259		31
43	Thermo-viscoplastic behaviour of 2024-T3 aluminium sheets subjected to low velocity perforation at different temperatures. <i>Thin-Walled Structures</i> , <b>2011</b> , 49, 819-832	4.7	23
42	An experimental method of measuring the quasi-static and dynamic confined behaviour of PMMA. <i>EPJ Web of Conferences</i> , <b>2010</b> , 6, 39009	0.3	1
41	Plastic Response of Thin-Walled Tubes to Detonation <b>2010</b> ,		5
40	Temperature increment during quasi-static compression tests using Mg metallic alloys. <i>Materials &amp; Design</i> , <b>2010</b> , 31, 3259-3269		4
39	Temperature measurements on ES steel sheets subjected to perforation by hemispherical projectiles. <i>International Journal of Impact Engineering</i> , <b>2010</b> , 37, 828-841	4	17
38	A thermo-viscoplastic constitutive model for FCC metals with application to OFHC copper. <i>International Journal of Mechanical Sciences</i> , <b>2010</b> , 52, 120-135	5.5	84
37	Experimental survey on the behaviour of AISI 304 steel sheets subjected to perforation. <i>Thin-Walled Structures</i> , <b>2010</b> , 48, 966-978	4.7	22
36	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> , <b>2010</b> , 47, 1268-1284	3.1	19
35	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> , <b>2009</b> , 41, 599-621	3.3	52
34	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> , <b>2009</b> , 36, 565-587	4	66
33	Constitutive relation for steels approximating quasi-static and intermediate strain rates at large deformations. <i>Mechanics Research Communications</i> , <b>2009</b> , 36, 419-427	2.2	19

32	Experiments on heat generated during plastic deformation and stored energy for TRIP steels. <i>Materials &amp; Design</i> , <b>2009</b> , 30, 35-48		138
31	Analysis of thermo-visco-plastic behaviour of six high strength steels. <i>Materials &amp; Design</i> , <b>2009</b> , 30, 1748-1761		49
30	Extension of RR constitutive relation to phase transformation phenomena. <i>Materials &amp; Design</i> , <b>2009</b> , 30, 2513-2520		7
29	Thermo-viscoplastic constitutive relation for aluminium alloys, modeling of negative strain rate sensitivity and viscous drag effects. <i>Materials &amp; Design</i> , <b>2009</b> , 30, 4377-4390		68
28	Residual Stresses in Orthogonal Cutting of Metals: The Effect of Thermomechanical Coupling Parameters and of Friction. <i>Journal of Thermal Stresses</i> , <b>2009</b> , 32, 269-289	2.2	42
27	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> , <b>2008</b> , 46, 1143-1163	4.7	31
26	Dynamic behaviour of high-strength sheet steel in dynamic tension: Experimental and numerical analyses. <i>Journal of Strain Analysis for Engineering Design</i> , <b>2008</b> , 43, 37-53	1.3	16
25	The influence of plastic instabilities on the mechanical properties of a high-manganese austenitic FeMnC steel. <i>International Journal of Materials Research</i> , <b>2008</b> , 99, 734-738	0.5	64
24	Internal variable modeling of the high strain-rate behavior of metals with applications to multiphase steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2008</b> , 478, 297-304	5.3	25
23	Numerical simulations of impact behaviour of thin steel plates subjected to cylindrical, conical and hemispherical non-deformable projectiles. <i>Engineering Fracture Mechanics</i> , <b>2008</b> , 75, 1635-1656	4.2	70
22	Influence of conical projectile diameter on perpendicular impact of thin steel plate. <i>Engineering Fracture Mechanics</i> , <b>2008</b> , 75, 2946-2967	4.2	51
21	The cohesive element approach to dynamic fragmentation: the question of energy convergence. <i>International Journal for Numerical Methods in Engineering</i> , <b>2007</b> , 69, 484-503	2.4	69
20	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> , <b>2007</b> , 44, 5611-5634	3.1	84
19	Finite element simulation of steel ring fragmentation under radial expansion. <i>International Journal of Impact Engineering</i> , <b>2007</b> , 34, 799-822	4	54
18	Effects of Strain Rate and Identification of Material Constants for Three Automotive Steels. <i>Steel Research International</i> , <b>2007</b> , 78, 348-358	1.6	17
17	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> , <b>2007</b> , 129, 550-558	1.8	17
16	Effect of a Quasi-Static Prestrain on Subsequent Dynamic Tensile Curves <b>2007</b> , 735-736		
15	Geometric Scale Effect in Dynamic Tension Tests, a Numerical Analysis <b>2007</b> , 733-734		

14	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> , <b>2006</b> , 134, 1287-1293		7
13	Numerical modelling of orthogonal cutting: Influence of cutting conditions and separation criterion. <i>European Physical Journal Special Topics</i> , <b>2006</b> , 134, 417-422		11
12	Shear Failure of Ti-6Al-4V by Direct Impact and Analyse of the Process of Elastic and Plastic Wave Propagation <b>2006</b> , 511-512		
11	Analysis of inertia and scale effects on dynamic neck formation during tension of sheet steel. <i>Acta Materialia</i> , <b>2005</b> , 53, 5387-5387	8.4	58
10	Plasticity of New Steels Used in Automotive Industries - Temperature Measurements by Thermo-Vision <b>2005</b> ,		3
9	Experimental study on puncture of PMMA at low and high velocities, effect on the failure mode. <i>Polymer Testing</i> , <b>2004</b> , 23, 703-718	4.5	18
8	Analyse thermographique de l'évolution de température dans un acier trip 800 au cours de la déformation plastique. <i>Materiaux Et Techniques</i> , <b>2004</b> , 92, 21-30	0.6	3
7	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> , <b>2003</b> , 110, 411-416		5
6	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> , <b>2001</b> , 17, 87-115	7.6	171
5	A numerical study on the wave propagation in tensile and perforation test. <i>European Physical Journal Special Topics</i> , <b>2000</b> , 10, Pr9-653-Pr9-658		2
4	Comportement viscoplastique des tôles en traction et cisaillement. Analyse de la vitesse d'impact critique. <i>Materiaux Et Techniques</i> , <b>1999</b> , 87, 41-52	0.6	3
3	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
2	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
1	Energy absorption analysis of aramid composite during blunt projectile impact. <i>Mechanics of Advanced Materials and Structures</i> , 1-12	1.8	1