

# Pavel Sandera

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4296926/publications.pdf>

Version: 2024-02-01

53  
papers

496  
citations

933447

10  
h-index

713466

21  
g-index

54  
all docs

54  
docs citations

54  
times ranked

433  
citing authors

#	ARTICLE	IF	CITATIONS
1	Stress raisers and fracture in shape memory alloys: review and ongoing challenges. Critical Reviews in Solid State and Materials Sciences, 2022, 47, 461-519.	12.3	6
2	Numerical analysis of NiTi actuators with stress risers: The role of bias load and actuation temperature. Engineering Fracture Mechanics, 2021, 244, 107551.	4.3	8
3	Experimental and numerical investigation of thermomechanical cycling of notched NiTi shape memory ribbon using SMA model accounting for plastic deformation. Journal of Materials Research and Technology, 2021, 15, 1759-1776.	5.8	3
4	Temperature Dependence of Fracture Characteristics of Various Heat-Treated Grades of Ultra-High-Strength Steel: Experimental and Modelling. Materials, 2021, 14, 5875.	2.9	2
5	Finite element analysis on the effect of martensitic transformation and plastic deformation on the stress concentration factor in a thin notched superelastic NiTi ribbon. Functional Materials Letters, 2020, 13, 2051028.	1.2	2
6	Determination of Ramberg-Osgood approximation for estimation of low-temperature fracture toughness. AIP Conference Proceedings, 2020, , .	0.4	1
7	Fatigue Life of 7475-T7351 Aluminum After Local Severe Plastic Deformation Caused by Machining. Materials, 2019, 12, 3605.	2.9	9
8	Local and equivalent stress intensity factors for tortuous cracks under remote mode II loading. Theoretical and Applied Fracture Mechanics, 2019, 101, 35-45.	4.7	5
9	Thermomechanically transforming Notched NiTi Thin ribbon: Effect of Martensitic Transformation on Stress Gradients. Procedia Structural Integrity, 2019, 23, 620-625.	0.8	4
10	Study on Generalization of Lefort's Approach to Critical Crack Length. Key Engineering Materials, 2019, 827, 153-158.	0.4	0
11	Grain boundary segregation of elements of groups 14 and 15 and its consequences for intergranular cohesion of ferritic iron. Journal of Materials Science, 2017, 52, 5822-5834.	3.7	11
12	Determination of local stress intensity factors at microstructurally tortuous crack fronts under remote mode II loading. Procedia Structural Integrity, 2017, 7, 254-261.	0.8	0
13	A Fractographic Study of Bending/Torsion Fatigue Failure in Metallic Materials with Protective Surface Layers. Advances in Materials Science and Engineering, 2016, 2016, 1-6.	1.8	3
14	Verification of Linear Dependence of Plastic Zone Size on J-Integral for Mixed-Mode Loading. Applied Mechanics and Materials, 2015, 751, 15-20.	0.2	1
15	Modeling Load-displacement Curve and Pop-in Effect in Nanoindentation Tests. , 2014, 3, 1111-1116.		2
16	Description of Fatigue Crack Growth under Modes II, III and II+III in Terms of J-integral. , 2014, 3, 835-840.		5
17	K-calibration of special specimens for mode II, III and II+III crack growth. Engineering Fracture Mechanics, 2013, 110, 430-437.	4.3	8
18	Solute segregation at 46.8°(111) twist grain boundary of a phosphorus doped Fe-2.3%V alloy. Surface Science, 2012, 606, 258-262.	1.9	15

#	ARTICLE	IF	CITATIONS
19	Fracture of polycrystalline Fe <sup>~</sup> 2.3%V <sup>~</sup> 0.12%P alloy. Engineering Fracture Mechanics, 2010, 77, 385-392.	4.3	6
20	Mechanism of factory-roof formation. Engineering Fracture Mechanics, 2010, 77, 1763-1771.	4.3	16
21	Micromechanisms of Fracture and Fatigue. Engineering Materials and Processes, 2010, , .	0.4	39
22	Toughening effects quantification in glass matrix composite reinforced by alumina platelets. Acta Materialia, 2008, 56, 2908-2918.	7.9	50
23	On the topography of fracture surfaces in bending <sup>~</sup> torsion fatigue. Engineering Fracture Mechanics, 2008, 75, 760-767.	4.3	19
24	Multiscale modelling of nanoindentation test in copper crystal. Engineering Fracture Mechanics, 2008, 75, 3755-3762.	4.3	9
25	Onset of Microplasticity in Copper Crystal during Nanoindentation. Key Engineering Materials, 2007, 348-349, 801-804.	0.4	2
26	Mechanical Properties and Structure of Low-Alloy Ultra-High Strength Steels. , 2006, , 202-206.		0
27	Computation of Effective Fatigue Thresholds Based on a New Concept of Crack Closure. Key Engineering Materials, 2006, 324-325, 803-806.	0.4	1
28	Effective Stress Intensity Factor for the Straight Crack Front with 3D-Ledges. , 2005, , 232-235.		0
29	On the Crack Tip Shielding in Particle Reinforced Composites. Materials Science Forum, 2005, 482, 311-314.	0.3	1
30	Effect of Grain Boundary Segregation on Mechanical Properties of P-Doped Fe-Si Base Alloys. Materials Science Forum, 2005, 482, 191-194.	0.3	4
31	Theoretical Strength of Metals and Intermetallics from First Principles. Materials Science Forum, 2005, 482, 33-38.	0.3	10
32	Statistical approach to roughness <sup>~</sup> induced shielding effects. Fatigue and Fracture of Engineering Materials and Structures, 2004, 27, 141-157.	3.4	25
33	Calculations of theoretical strength: State of the art and history. Journal of Computer-Aided Materials Design, 2004, 11, 1-28.	0.7	101
34	Ab initio analysis of theoretical isotropic strength and elasticity of nickel aluminide compounds. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 923-925.	5.6	11
35	Ab initio calculations of ideal tensile strength and mechanical stability in copper. Journal of Physics Condensed Matter, 2004, 16, 1045-1052.	1.8	61
36	Ab initio calculation of ideal strength for cubic crystals under three-axial tension. European Physical Journal D, 1999, 49, 1495-1501.	0.4	20

#	ARTICLE	IF	CITATIONS
37	Elastic-Plastic Response of Cracked Crystals. <i>Key Engineering Materials</i> , 1994, 97-98, 467-472.	0.4	1
38	Improvement of the Mackenzie theory on ideal shear strength. <i>Scripta Metallurgica Et Materialia</i> , 1993, 29, 1445-1450.	1.0	13
39	Assessment of Extrinsic Crack Tip Shielding in Austenitic Steel near Fatigue Threshold. <i>Key Engineering Materials</i> , 0, 385-387, 49-52.	0.4	3
40	Linear-Elastic and Elastoplastic Mode II and III Crack Tip Stress-Strain Fields in Cylindrical Specimens with Circumferential Crack. <i>Key Engineering Materials</i> , 0, 417-418, 321-324.	0.4	2
41	Stress Intensity Factors for Surface Semi-Elliptical Crack in Cylindrical Specimen under Combined Torsion and Axial Compression. <i>Key Engineering Materials</i> , 0, 452-453, 673-676.	0.4	0
42	Geometrical Shielding Produced by Intergranular Crack-Tip Branching in Fe-V-P Alloy. <i>Key Engineering Materials</i> , 0, 465, 574-577.	0.4	0
43	Comparison of Solutions of Stress Field Based on Hertzian and Combined Numerical-Crystallographic Approaches Beneath Nanoindenter. <i>Key Engineering Materials</i> , 0, 488-489, 395-398.	0.4	1
44	Specimens for Simultaneous Mode II, III and II+III Fatigue Crack Propagation: Elasto-Plastic Solution of Crack Tip Stress-Strain Field. <i>Advanced Materials Research</i> , 0, 891-892, 1585-1590.	0.3	6
45	Description of Fatigue Crack Propagation under Mixed-Mode II+III in Terms of J-Integral. <i>Key Engineering Materials</i> , 0, 627, 145-148.	0.4	1
46	Numerical Fracture Analysis of Compact Tension Shear (CTS) Specimens with Tortuous Crack Fronts. <i>Key Engineering Materials</i> , 0, 665, 77-80.	0.4	1
47	Ni-Ti Self-Expanding Vascular Stent Configuration and Biomedical Interaction with Artery: Finite Element Analysis. <i>Solid State Phenomena</i> , 0, 258, 366-369.	0.3	2
48	Analysis of Selective Laser Melting Process Parameters Effect on Mechanical and Material Properties for Stainless Steel 316L. <i>Solid State Phenomena</i> , 0, 258, 579-582.	0.3	0
49	Shear Mode Stress Intensity Factors for Serrated Crack Fronts. <i>Key Engineering Materials</i> , 0, 754, 214-217.	0.4	1
50	Stress Intensity Factors for Cracks Emanating from a Notch under Shear-Mode Loading. <i>Key Engineering Materials</i> , 0, 774, 48-53.	0.4	2
51	Stress Intensity Factors for Rough Cracks Loaded in Mode II. <i>Solid State Phenomena</i> , 0, 258, 310-313.	0.3	3
52	The Effect of Prior Surface Roughness on Fatigue Life of Nitrided Specimens. <i>Defect and Diffusion Forum</i> , 0, 405, 271-276.	0.4	0
53	Analysis of Roughness-Induced Crack-Tip Shielding in Terms of Size Ratio Effect. , 0, , 491-491-15.		0