

# Philippe Bocher

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4166690/publications.pdf>

Version: 2024-02-01

54  
papers

1,118  
citations

430874

18  
h-index

434195

31  
g-index

55  
all docs

55  
docs citations

55  
times ranked

1011  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of heat treatments on microstructural and mechanical characteristics of dissimilar friction stir welded 2198/2024 aluminum alloys. <i>Journal of Adhesion Science and Technology</i> , 2022, 36, 221-239.	2.6	18
2	Effects of SMAT at cryogenic and room temperatures on the kink band and martensite formations with associated fatigue resistance in a $\beta$ -metastable titanium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 803, 140618.	5.6	26
3	Friction stir processing of austenitic stainless steel cold spray coating deposited on 304L stainless steel substrate: feasibility study. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 115, 2379-2393.	3.0	10
4	An investigation on fracture toughness of the heat-affected zone in the welded joints of 13% Cr-4% Ni martensitic stainless steels. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2021, 44, 3416-3430.	3.4	2
5	Effect of low temperature intercritical heat-treatment on stable crack growth behavior in 13% Cr-4% Ni martensitic stainless steel multipass weldments. <i>Engineering Fracture Mechanics</i> , 2020, 240, 107360.	4.3	9
6	How does surface integrity of nanostructured surfaces induced by severe plastic deformation influence fatigue behaviors of Al alloys with enhanced precipitation?. <i>International Journal of Fatigue</i> , 2020, 140, 105792.	5.7	18
7	Microstructural Alteration of Alloyed Steel in Direct Metal Laser Melting by Powder Bed Deposition System. <i>Steel Research International</i> , 2020, 91, 1900667.	1.8	0
8	Microstructure Evolution, Mechanical Properties and Deformation Behavior of an Additively Manufactured Maraging Steel. <i>Materials</i> , 2020, 13, 2380.	2.9	38
9	A Study of the Interlaminar Fracture Toughness of Unidirectional Flax/Epoxy Composites. <i>Journal of Composites Science</i> , 2020, 4, 66.	3.0	12
10	Ni and Mn enrichment effects on reformed austenite: thermodynamical and low cycle fatigue stability of 13%Cr-4%Ni and 13%Cr-6%Ni stainless steels. <i>SN Applied Sciences</i> , 2020, 2, 1.	2.9	5
11	Detecting Defects in Materials Using Deep Convolutional Neural Networks. <i>Lecture Notes in Computer Science</i> , 2020, , 293-306.	1.3	2
12	On the ductile rupture of 13% Cr-4% Ni martensitic stainless steels. <i>International Journal of Fracture</i> , 2020, 224, 67-82.	2.2	3
13	Optimization of the edge effect of 4340 steel specimen heated by induction process with flux concentrators using finite element axis-symmetric simulation and experimental validation. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 104, 4549-4557.	3.0	8
14	Inconel 718 Superalloy Controlled Surface Integrity for Fatigue Applications Produced by Precision Turning. <i>International Journal of Precision Engineering and Manufacturing</i> , 2019, 20, 1297-1310.	2.2	9
15	Reduction of edge effect using response surface methodology and artificial neural network modeling of a spur gear treated by induction with flux concentrators. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 104, 103-117.	3.0	7
16	Analysis of AA2XXX/AA7XXX friction stir welds. <i>Journal of Materials Processing Technology</i> , 2019, 271, 312-324.	6.3	30
17	Diffraction-grain identification from electron backscatter diffraction maps during residual stress measurements: a comparison between the $\sin^2\psi$ and $\cos\psi$ methods. <i>Journal of Applied Crystallography</i> , 2019, 52, 828-843.	4.5	10
18	Statistical analysis of high cycle fatigue life and inclusion size distribution in shot peened 300M steel. <i>International Journal of Fatigue</i> , 2019, 118, 126-138.	5.7	31

#	ARTICLE	IF	CITATIONS
19	Sensitivity study of hardness profile of 4340 steel disc hardened by induction according to machine parameters and geometrical factors. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 101, 209-221.	3.0	5
20	Modeling of cementite coarsening during tempering of low-alloyed-medium carbon steel. <i>Journal of Materials Science</i> , 2018, 53, 6198-6218.	3.7	10
21	Experimental Investigation on High-Cycle Fatigue of Inconel 625 Superalloy Brazed Joints. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 1244-1253.	2.2	7
22	Microstructure and Texture Development in Al-3%Brass Composite Produced through ARB. <i>Advanced Engineering Materials</i> , 2018, 20, 1700463.	3.5	5
23	Discrete element-periodic cell coupling model and investigations on shot stream expansion, Almen intensities and target materials. <i>International Journal of Mechanical Sciences</i> , 2018, 145, 353-366.	6.7	16
24	Evaluation of Rolling Contact Fatigue of a Carburized Wind Turbine Gear Considering the Residual Stress and Hardness Gradient. <i>Journal of Tribology</i> , 2018, 140, .	1.9	33
25	Finite Element Analysis Simulation of the Effect of Induction Hardening on Rolling Contact Fatigue. <i>Journal of Tribology</i> , 2018, 140, .	1.9	10
26	Effect of tool geometry and welding speed on mechanical properties of dissimilar AA2198- AA2024 FSWed joint. <i>Journal of Manufacturing Processes</i> , 2018, 34, 86-95.	5.9	46
27	Structural Performance of Inconel 625 Superalloy Brazed Joints. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 547-553.	2.5	14
28	Effect of inclusions on fracture behavior of cast and wrought 13% Cr-4% Ni martensitic stainless steels. <i>Engineering Fracture Mechanics</i> , 2017, 175, 262-278.	4.3	13
29	Optimization study of dry peripheral milling process for improving aeronautical part integrity using Grey relational analysis. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 91, 931-942.	3.0	12
30	Macro-defects characterization in cast CA-6NM martensitic stainless steel. <i>Materials Characterization</i> , 2017, 124, 31-39.	4.4	10
31	A sequential DEM-FEM coupling method for shot peening simulation. <i>Surface and Coatings Technology</i> , 2017, 319, 200-212.	4.8	66
32	Predictive analytical modeling of cutting forces generated by high-speed machining of ductile and hard metals. <i>Machining Science and Technology</i> , 2017, 21, 335-361.	2.5	7
33	Investigation into the dissimilar friction stir welding of AA7020-T651 and AA6060-T6. <i>Journal of Materials Processing Technology</i> , 2016, 235, 220-230.	6.3	58
34	An Hybrid Approach Based on Machining and Dynamic Tests Data for the Identification of Material Constitutive Equations. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 1010-1027.	2.5	9
35	Prediction of crack initiation sites in alpha Ti-alloys microstructures under dwell-fatigue using Cellular Automaton simulation method. <i>International Journal of Fatigue</i> , 2016, 85, 85-97.	5.7	21
36	Microstructure characterization and hardness distribution of 13Cr4Ni multipass weld metal. <i>Materials Characterization</i> , 2016, 111, 128-136.	4.4	30

#	ARTICLE	IF	CITATIONS
37	Effects of Various Post-Weld Heat Treatments on Austenite and Carbide Formation in a 13Cr4Ni Steel Multipass Weld. <i>Metallography, Microstructure, and Analysis</i> , 2016, 5, 50-61.	1.0	8
38	Predicting the effects of material properties gradient and residual stresses on the bending fatigue strength of induction hardened aeronautical gears. <i>International Journal of Fatigue</i> , 2016, 85, 70-84.	5.7	69
39	Endurance of Damping Properties of Foam-Filled Tubes. <i>Materials</i> , 2015, 8, 4061-4079.	2.9	12
40	Measurement and correction of residual stress gradients in aeronautical gears after various induction surface hardening treatments. <i>Journal of Materials Processing Technology</i> , 2015, 220, 113-123.	6.3	44
41	Microstructure Characterization of Single and Multipass 13Cr4Ni Steel Welded Joints. <i>Metallography, Microstructure, and Analysis</i> , 2015, 4, 207-218.	1.0	14
42	Assessment of cold cracking tests for low transformation temperature martensitic stainless steel multipass welds. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015, 59, 521-532.	2.5	7
43	Modeling the elastoplastic behaviors of alpha Ti-alloys microstructure using Cellular Automaton and finite element methods. <i>Computational Materials Science</i> , 2015, 99, 33-42.	3.0	8
44	Surface Finish and Residual Stresses Induced by Orthogonal Dry Machining of AA7075-T651. <i>Materials</i> , 2014, 7, 1603-1624.	2.9	41
45	Realistic Cold Expansion Finite Element Model and Experimental Validations for Aluminium Alloys. <i>Experimental Mechanics</i> , 2014, 54, 841-855.	2.0	7
46	Method for Accurate Surface Temperature Measurements During Fast Induction Heating. <i>Journal of Materials Engineering and Performance</i> , 2013, 22, 1907-1913.	2.5	2
47	IMPROVING THE FORMABILITY OF STAINLESS STEEL 321 THROUGH MULTISTEP DEFORMATION FOR HYDROFORMING APPLICATIONS. <i>Transactions of the Canadian Society for Mechanical Engineering</i> , 2013, 37, 39-52.	0.8	5
48	Computational quantification and correction of the errors induced by layer removal for subsurface residual stress measurements. <i>International Journal of Mechanical Sciences</i> , 2012, 64, 184-195.	6.7	38
49	Multiphysics Modeling of Induction Hardening of Ring Gears for the Aerospace Industry. <i>IEEE Transactions on Magnetics</i> , 2011, 47, 918-921.	2.1	39
50	Reformed austenite transformation during fatigue crack propagation of 13%Cr4Ni stainless steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 6519-6526.	5.6	30
51	Residual stress characterization in low transformation temperature 13%Cr4Ni stainless steel weld by neutron diffraction and the contour method. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 6205-6210.	5.6	78
52	Macroregion Size Measurements in Bimodal Titanium Forgings Using Two-Dimensional Autocorrelation Method. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 744-750.	2.2	6
53	Multiphysics modeling of induction hardening of ring gears for the aerospace industry. , 2010, , .		1
54	Residual stress and microstructure in welds of 13%Cr4Ni martensitic stainless steel. <i>Journal of Materials Processing Technology</i> , 2009, 209, 2195-2202.	6.3	99