

Thierry Douillard

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.

86

papers

1,470

citations

22

h-index

36

g-index

88

ext. papers

1,797

ext. citations

5.7

avg. IF

4.61

L-index

#	Paper	IF	Citations
86	Impact of spherulite-type crystalline defects on the mechanical and electrochemical properties of TiCuZrPd metallic glasses. <i>Materialia</i> , 2022 , 21, 101353	3.2	1
85	Unveiling damage sites and fracture path in laser powder bed fusion AlSi10Mg: Comparison between horizontal and vertical loading directions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 807, 140845	5.3	10
84	Intrinsic properties of osteomalacia bone evaluated by nanoindentation and FTIRM analysis. <i>Journal of Biomechanics</i> , 2021 , 117, 110247	2.9	1
83	Structural modifications of boron carbide irradiated by swift heavy ions. <i>Journal of Nuclear Materials</i> , 2021 , 546, 152737	3.3	2
82	Observation of a modified superficial layer on heavily loaded contacts under grease lubrication. <i>Tribology International</i> , 2021 , 158, 106921	4.9	1
81	Effect of microstructure heterogeneity on the damage resistance of nacre-like alumina: Insights from image-based discrete simulations. <i>Scripta Materialia</i> , 2021 , 191, 210-214	5.6	2
80	3D microstructural study of selachimorph enameloid evolution. <i>Journal of Structural Biology</i> , 2021 , 213, 107664	3.4	0
79	Intraoral low-temperature degradation of monolithic zirconia dental prostheses: Results of a prospective clinical study with ex vivo monitoring. <i>Dental Materials</i> , 2021 , 37, 1134-1149	5.7	5
78	eCHORD orientation mapping of bio-inspired alumina down to 1 kV. <i>Materialia</i> , 2021 , 20, 101207	3.2	0
77	Multiscale Characterization of Composite Electrode Microstructures for High Density Lithium-ion Batteries Guided by the Specificities of Their Electronic and Ionic Transport Mechanisms. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 100521	3.9	10
76	A simple approach to bulk bioinspired tough ceramics. <i>Materialia</i> , 2020 , 12, 100807	3.2	6
75	Microstructural study of the NbC to G-phase transformation in HP-Nb alloys. <i>Materialia</i> , 2020 , 9, 100593	3.2	4
74	Effective Electronic and Ionic Conductivities of Dense EV-Designed NMC-Based Positive Electrodes using Fourier Based Numerical Simulations on FIB/SEM Volumes. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 140504	3.9	7
73	Microstructure and hydrothermal ageing of alumina-zirconia composites modified by laser engraving. <i>Journal of the European Ceramic Society</i> , 2020 , 40, 2077-2089	6	8
72	Phase transformation induces plasticity with negligible damage in ceria-stabilized zirconia-based ceramics. <i>Acta Materialia</i> , 2020 , 183, 261-273	8.4	16
71	Forty years after the promise of "ceramic steel": Zirconia-based composites with a metal-like mechanical behavior. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 1482-1513	3.8	39
70	Influence on microstructure, strength and ductility of build platform temperature during laser powder bed fusion of AlSi10Mg. <i>Acta Materialia</i> , 2020 , 201, 231-243	8.4	29

69	Magnetic filaments for anisotropic composite polymers. <i>Nanotechnology</i> , 2020 , 31, 395503	3.4	2
68	Influence of artificial aging on mechanical properties of commercially and non-commercially available zirconia dental implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 101, 103423	4.1	13
67	Towards large scale orientation mapping using the eCHORD method. <i>Ultramicroscopy</i> , 2020 , 208, 112854	3.1	3
66	Growth and Characterization of Undoped Polysilicon Thick Layers: Revisiting an Old System. <i>Silicon</i> , 2020 , 12, 1187-1194	2.4	1
65	Microstructural analyses of artificial ageing in 5 commercially and non-commercially available Zirconia dental implants. <i>Journal of the European Ceramic Society</i> , 2020 , 40, 3642-3655	6	6
64	When Ion or Electron Channeling Meets Crystal Orientation Mapping. <i>Microscopy and Microanalysis</i> , 2019 , 25, 1964-1965	0.5	
63	Local fracture toughness measurements in polycrystalline cubic zirconia using micro-cantilever bending tests. <i>Mechanics of Materials</i> , 2019 , 136, 103086	3.3	17
62	Numerical Prediction of Multiscale Electronic Conductivity of Lithium-Ion Battery Positive Electrodes. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A1692-A1703	3.9	13
61	Effect of grain orientation and magnesium doping on strontium calcium phosphate resorption behavior. <i>Acta Biomaterialia</i> , 2019 , 89, 391-402	10.8	22
60	Angular resolution expected from iCHORD orientation maps through a revisited ion channeling model. <i>Ultramicroscopy</i> , 2019 , 202, 68-75	3.1	1
59	Three-dimensional structure and formation mechanisms of Y2O3 hollow-precipitates in a Cu-based metallic glass. <i>Materials and Design</i> , 2019 , 168, 107660	8.1	9
58	Toward an automated tool for dislocation density characterization in a scanning electron microscope. <i>Materials Characterization</i> , 2019 , 158, 109954	3.9	1
57	Highly ductile amorphous oxide at room temperature and high strain rate. <i>Science</i> , 2019 , 366, 864-869	33.3	58
56	Rotational-Electron Channeling Contrast Imaging analysis of dislocation structure in fatigued copper single crystal. <i>Scripta Materialia</i> , 2019 , 162, 103-107	5.6	9
55	Origin of Nickel Catalytic Particles in Carbon Nanotube Formation on a High-Carbon 25Cr5Ni5Nb Cast Alloy. <i>Oxidation of Metals</i> , 2019 , 91, 279-290	1.6	1
54	The effects of microstructures and repassivation kinetics on the tribocorrosion resistance of ferrite and ferrite-martensite stainless steels. <i>Wear</i> , 2019 , 420-421, 245-256	3.5	8
53	In situ TEM observations of ion irradiation damage in boron carbide. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 726-734	6	7
52	Can (Mg,Y)-PSZ/Spinel composites be a valuable option for dental application?. <i>International Journal of Applied Ceramic Technology</i> , 2018 , 15, 873-883	2	0

51	Self-Arranged Periodic Nanovoids by Ultrafast Laser-Induced Near-Field Enhancement. <i>ACS Photonics</i> , 2018 , 5, 1418-1426	6.3	33
50	Sub-surface assessment of hydrothermal ageing in zirconia-containing femoral heads for hip joint applications. <i>Acta Biomaterialia</i> , 2018 , 68, 286-295	10.8	15
49	Electron CHanneling ORientation Determination (eCHORD): An original approach to crystalline orientation mapping. <i>Ultramicroscopy</i> , 2018 , 186, 146-149	3.1	15
48	Room temperature plasticity and phase transformation of nanometer-sized transition alumina nanoparticles under pressure. <i>Acta Materialia</i> , 2018 , 150, 308-316	8.4	9
47	A Facile and Very Effective Method to Enhance the Mechanical Strength and the Cyclability of Si-Based Electrodes for Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1701787	21.8	58
46	Towards quantitative analysis of enamel erosion by focused ion beam tomography. <i>Dental Materials</i> , 2018 , 34, e289-e300	5.7	4
45	iCHORD-SI combination as an alternative to EDS-EBSD coupling for the characterization of nickel-based superalloy microstructures. <i>Materials Characterization</i> , 2018 , 142, 492-503	3.9	8
44	Fabrication of BN membranes containing high density of cylindrical pores using an elegant approach. <i>RSC Advances</i> , 2017 , 7, 20709-20715	3.7	2
43	Multiscale Morphological and Electrical Characterization of Charge Transport Limitations to the Power Performance of Positive Electrode Blends for Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2017 , 7, 1602239	21.8	50
42	Self-diffusion of electrolyte species in model battery electrodes using Magic Angle Spinning and Pulsed Field Gradient Nuclear Magnetic Resonance. <i>Journal of Power Sources</i> , 2017 , 362, 315-322	8.9	6
41	Crystallographic Orientation Maps Obtained from Ion and Backscattered Electron Channeling Contrast. <i>Microscopy and Microanalysis</i> , 2017 , 23, 552-553	0.5	
40	Multiscale morphological characterization of process induced heterogeneities in blended positive electrodes for lithium-ion batteries. <i>Journal of Materials Science</i> , 2017 , 52, 3576-3596	4.3	26
39	The crystal structure of Rb ₂ Ti ₂ O ₅ . <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2017 , 73, 1142-1150	1.8	2
38	Ion imaging in a Focused Ion Beam microscope: modeling the channeling contrast to construct EBSD-like orientation maps 2016 , 589-590		
37	In situ deformation of nanocrystalline Al ₂ O ₃ thin films at room temperature 2016 , 195-196		
36	Ni-based superalloy: crystalline orientation mapping and gamma-gamma' phases discrimination with the iCHORD method 2016 , 930-931		
35	Heterointerfaces TEM characterization of buffer layers in KF treated CIGS solar cells. Towards a new buffer layer? 2016 , 898-899		
34	Evolution of the 3D Microstructure of a Si-Based Electrode for Li-Ion Batteries Investigated by FIB/SEM Tomography. <i>Journal of the Electrochemical Society</i> , 2016 , 163, A1550-A1559	3.9	21

33	M23C6 carbides and Cr2N nitrides in aged duplex stainless steel: A SEM, TEM and FIB tomography investigation. <i>Micron</i> , 2016 , 84, 43-53	2.3	51
32	Multi scale tomography of materials for Li-ion battery electrodes 2016 , 7-7		
31	Nerve Growth Factor Expression and Its Receptors TrkA and p75NTR in Peri-Implantitis Lesions. <i>Implant Dentistry</i> , 2016 , 25, 373-9	2.4	1
30	Growth Twinning and Generation of High-Frequency Surface Nanostructures in Ultrafast Laser-Induced Transient Melting and Resolidification. <i>ACS Nano</i> , 2016 , 10, 6995-7007	16.7	71
29	Elaboration and behavior under extreme irradiation conditions of nano- and micro-structured TiC. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015 , 356-357, 114-128	1.2	8
28	Investigating the n- and p-Type Electrolytic Charging of Colloidal Nanoplatelets. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 21795-21799	3.8	52
27	Crystal orientation mapping via ion channeling: An alternative to EBSD. <i>Ultramicroscopy</i> , 2015 , 157, 65-73	3.1	19
26	A new testing protocol for zirconia dental implants. <i>Dental Materials</i> , 2015 , 31, 15-25	5.7	65
25	Thickness evaluation of thermally sprayed coatings after exposure to boiler tube environments by eddy current testing. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2015 , 47, 993-1001	0.4	3
24	Effect of amount of doping agent on sintering, microstructure and optical properties of Zr- and La-doped alumina sintered by SPS. <i>Journal of the European Ceramic Society</i> , 2014 , 34, 1279-1288	6	33
23	Microstructure Evolution in Nano-reinforced Ferritic Steel Processed By Mechanical Alloying and Spark Plasma Sintering. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 1485-1497	2.3	63
22	Effect of different surface treatments on the hydrothermal degradation of a 3Y-TZP ceramic for dental implants. <i>Dental Materials</i> , 2014 , 30, 1136-46	5.7	32
21	Evolution of microstructure and strength during the ultra-fast tempering of Fe-Mn-C martensitic steels. <i>Journal of Materials Science</i> , 2014 , 49, 7782-7796	4.3	15
20	Influence of firing time and framework thickness on veneered Y-TZP discs curvature. <i>Dental Materials</i> , 2014 , 30, 242-8	5.7	11
19	Acquisition of Micro-mechanical Data on Irradiated Fuel. <i>Microscopy and Microanalysis</i> , 2014 , 20, 1844-1845	4.5	15
18	Role of Ceria Nanoparticles on the Electrodeposited Zinc Coating Growth: Interest of a TEM-Scale Investigation. <i>ECS Electrochemistry Letters</i> , 2014 , 3, D33-D35		5
17	Model Materials for Irradiated Fuels: Study of Local Mechanical Behavior Using Nanoindentation and Microstructural Analysis. <i>Microscopy and Microanalysis</i> , 2014 , 20, 1832-1833	0.5	
16	Low temperature degradation and reliability of one-piece ceramic oral implants with a porous surface. <i>Dental Materials</i> , 2013 , 29, 389-97	5.7	51

15	3D-characterization of the veneer-zirconia interface using FIB nano-tomography. <i>Dental Materials</i> , 2013 , 29, 157-65	5.7	22
14	Evidence for the formation of distorted nanodomains involved in the phase transformation of stabilized zirconia by coupling convergent beam electron diffraction and in situ TEM nanoindentation. <i>Acta Materialia</i> , 2013 , 61, 174-182	8.4	5
13	A global investigation into in situ nanoindentation experiments on zirconia: from the sample geometry optimization to the stress nanolocalization using convergent beam electron diffraction. <i>Journal of Microscopy</i> , 2013 , 249, 99-110	1.9	3
12	Multiscale phase mapping of LiFePO ₄ -based electrodes by transmission electron microscopy and electron forward scattering diffraction. <i>ACS Nano</i> , 2013 , 7, 10887-94	16.7	60
11	Influence of crystallographic orientation on the early stages of oxidation of polycrystalline titanium nitride. <i>Journal of Nuclear Materials</i> , 2012 , 427, 415-417	3.3	14
10	Comparative ageing behaviour of commercial, unworn and worn 3Y-TZP and zirconia-toughened alumina hip joint heads. <i>Journal of the European Ceramic Society</i> , 2012 , 32, 1529-1540	6	39
9	Bone micromechanical properties are compromised during long-term alendronate therapy independently of mineralization. <i>Journal of Bone and Mineral Research</i> , 2012 , 27, 825-34	6.3	84
8	Stabilization of ZnCl ₂ -containing wastes using calcium sulfoaluminate cement: leaching behaviour of the solidified waste form, mechanisms of zinc retention. <i>Journal of Hazardous Materials</i> , 2011 , 194, 268-76	12.8	28
7	Respective roles of organic and mineral components of human cortical bone matrix in micromechanical behavior: an instrumented indentation study. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011 , 4, 1473-82	4.1	62
6	Microcracking of high zirconia refractories after t-m phase transition during cooling: An EBSD study. <i>Journal of the European Ceramic Society</i> , 2011 , 31, 1525-1531	6	14
5	Reconstruction of the Cubic and Tetragonal Parent Grains from Electron Backscatter Diffraction Maps of Monoclinic Zirconia. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 2541-2544	3.8	16
4	Experimental determination of the macroscopic fatigue properties of metal hollow sphere structures. <i>Materials Letters</i> , 2009 , 63, 1131-1134	3.3	21
3	Sintering mechanisms involved in high-velocity compaction of nascent semicrystalline polymer powders. <i>Acta Materialia</i> , 2009 , 57, 2550-2559	8.4	31
2	Strain-hardening influence on iodine induced stress corrosion cracking of Zircaloy-4. <i>Journal of Nuclear Materials</i> , 2008 , 373, 59-70	3.3	13
1	Incorporation of Aluminum into CSH Structures: From Synthesis to Nanostructural Characterization. <i>Journal of the American Ceramic Society</i> , 2008 , 91, 2337-2342	3.8	17