

Arnaud Caron

List of Publications by Year in descending order

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47
papers

1,164
citations

361413

20
h-index

377865

34
g-index

48
all docs

48
docs citations

48
times ranked

1419
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic Scale Mechanisms of Friction Reduction and Wear Protection by Graphene. Nano Letters, 2014, 14, 7145-7152.	9.1	210
2	Synthesis and properties of hydroxyapatite-containing porous titania coating on ultrafine-grained titanium by micro-arc oxidation. Acta Biomaterialia, 2010, 6, 2816-2825.	8.3	171
3	Young's modulus, fracture strength, and Poisson's ratio of nanocrystalline diamond films. Journal of Applied Physics, 2014, 116, .	2.5	62
4	Novel W-based metallic glass with high hardness and wear resistance. Intermetallics, 2014, 47, 6-10.	3.9	54
5	Mechanical behaviour and in situ observation of shear bands in ultrafine grained Pd and Pd–Ag alloys. Acta Materialia, 2010, 58, 967-978.	7.9	43
6	Tuning Nanoscopic Water Layers on Hydrophobic and Hydrophilic Surfaces with Laser Light. Langmuir, 2008, 24, 635-636.	3.5	41
7	Observation of local internal friction and plasticity onset in nanocrystalline nickel by atomic force acoustic microscopy. Acta Materialia, 2009, 57, 4353-4363.	7.9	41
8	Structure vs Chemistry: Friction and Wear of Pt-Based Metallic Surfaces. ACS Applied Materials & Interfaces, 2013, 5, 11341-11347.	8.0	35
9	Intermediate structural state for maximizing the rejuvenation effect in metallic glass via thermo-cycling treatment. Journal of Alloys and Compounds, 2019, 795, 493-500.	5.5	34
10	Glass-forming ability and thermoplastic formability of a Pd ₄₀ Ni ₄₀ Si ₄ P ₁₆ glassy alloy. Journal of Materials Science, 2011, 46, 2091-2096.	3.7	33
11	Effect of surface oxidation on the nm-scale wear behavior of a metallic glass. Journal of Applied Physics, 2011, 109, .	2.5	33
12	Quantitative Evaluation of Elastic Properties of Nano-Crystalline Nickel Using Atomic Force Acoustic Microscopy. Zeitschrift Fur Physikalische Chemie, 2008, 222, 471-498.	2.8	31
13	Influence of minor aluminum concentration changes in zirconium-based bulk metallic glasses on the elastic, anelastic, and plastic properties. Acta Materialia, 2010, 58, 2004-2013.	7.9	31
14	Imaging using lateral bending modes of atomic force microscope cantilevers. Applied Physics Letters, 2004, 85, 6398-6400.	3.3	30
15	Tailoring nanostructured Ni-Nb metallic glassy thin films by substrate temperature. Acta Materialia, 2020, 194, 13-26.	7.9	28
16	Structure and nano-mechanical characteristics of surface oxide layers on a metallic glass. Nanotechnology, 2011, 22, 095704.	2.6	26
17	Towards the Use of Waste Pig Fat as a Novel Potential Bio-Based Rejuvenator for Recycled Asphalt Pavement. Materials, 2020, 13, 1002.	2.9	26
18	Importance of surface oxide for the tribology of a Zr-based metallic glass. Friction, 2017, 5, 115-122.	6.4	25

#	ARTICLE	IF	CITATIONS
19	On the anelasticity and strain induced structural changes in a Zr-based bulk metallic glass. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	23
20	Phase transformations in Zr-based bulk metallic glass cyclically loaded before plastic yielding. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 550, 358-362.	5.6	22
21	Nanosopic wear behavior of face centered cubic metals. <i>Acta Materialia</i> , 2018, 147, 203-212.	7.9	21
22	Chemical effects on the sliding friction of Ag and Au(111). <i>Friction</i> , 2018, 6, 84-97.	6.4	17
23	Investigation of transparent magnetic material formed by selective oxidation of a metallic glass. <i>Thin Solid Films</i> , 2013, 531, 471-475.	1.8	13
24	Interfacial Water an Exceptional Biolubricant. <i>Crystal Growth and Design</i> , 2009, 9, 3852-3854.	3.0	11
25	Structural features and high quasi-static strain rate sensitivity of Au ₄₉ Cu _{26.9} Ag _{5.5} Pd _{2.3} Si _{16.3} bulk metallic glass. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	11
26	Effect of cooling rate on the structure and nanotribology of Ag-Cu nano-eutectic alloys. <i>Journal of Materials Science</i> , 2019, 54, 9168-9184.	3.7	11
27	Lower nanometer-scale size limit for the deformation of a metallic glass by shear transformations revealed by quantitative AFM indentation. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 1721-1732.	2.8	10
28	On the Contribution of Friction to the Contact Damping in Atomic Force Acoustic Microscopy. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 120204.	1.5	9
29	Control of electrical to thermal conductivity ratio for p-type $\text{La}_{x}\text{Fe}_{3}\text{CoSb}_{12}$ thermoelectrics by using a melt-spinning process. <i>Journal of Alloys and Compounds</i> , 2017, 729, 1209-1214.	5.5	9
30	Effect of crystallographic orientation on the friction of copper and graphenized copper. <i>Journal of Materials Science</i> , 2020, 55, 16432-16450.	3.7	7
31	Mesostructural effects on the mechanical properties of Zr-based bulk metallic glasses. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 555, 57-62.	5.6	6
32	Investigation on the role of interfacial water on the tribology between graphite and metals. <i>RSC Advances</i> , 2019, 9, 7285-7291.	3.6	6
33	Structurally enhanced anelasticity in Zr-based bulk metallic glasses. <i>Scripta Materialia</i> , 2011, 64, 946-949.	5.2	5
34	Unlocking the Hidden Potential of Cosmetics Waste for Building Sustainable Green Pavements in the Future: A Case Study of Discarded Lipsticks. <i>Molecules</i> , 2022, 27, 1697.	3.8	5
35	ClasséForming Ability and Ductility of Zr-Based and Al-Rich Bulk Metallic Glasses. <i>Advanced Engineering Materials</i> , 2008, 10, 1020-1025.	3.5	4
36	Quantitative Hardness Measurement by Instrumented AFM-indentation. <i>Journal of Visualized Experiments</i> , 2016, , .	0.3	4

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37	Ultrasonic Modes in Atomic Force Microscopy. <i>Acoustical Imaging</i> , 2004, , 699-706.	0.2	4
38	Effect of Normal Contact Vibration on Nano-Scale Friction. <i>Lubricants</i> , 2019, 7, 99.	2.9	3
39	Mesoporous Carbonâ€dispersed Carbon Nanotube Film Electrode Incorporated with Sulfur for Longâ€Life Liâ€S Batteries. <i>Bulletin of the Korean Chemical Society</i> , 2019, 40, 412-417.	1.9	2
40	Li ₂ S-Incorporated Separator for Achieving High-Energy-Density Li-S Batteries. <i>Journal of Electrochemical Science and Technology</i> , 2020, 11, 33-40.	2.2	2
41	Corrosion effects on the nanotribology of a Ni ₆₂ Nb ₃₈ metallic glass. <i>Applied Surface Science</i> , 2022, 573, 151628.	6.1	2
42	On the glass transition temperature and the elastic properties in Zr-based bulk metallic glasses. <i>Philosophical Magazine Letters</i> , 2011, 91, 751-756.	1.2	1
43	How Good Are the Performances of Graphene and Boron Nitride Against the Wear of Copper?. <i>Materials</i> , 2021, 14, 1148.	2.9	1
44	Near-Field Acoustical Imaging using Lateral Bending Mode of Atomic Force Microscope Cantilevers. <i>Acoustical Imaging</i> , 2007, , 31-41.	0.2	1
45	Friction and Internal Friction Measurements by Atomic Force Acoustic Microscopy. <i>Nanoscience and Technology</i> , 2013, , 391-416.	1.5	0
46	Experimental Studies of Nanometer-Scaled Single-Asperity Contacts with Metal Surfaces. , 0, , .		0
47	Distinction Between Magnesium Diboride and Tetraboride by Kelvin Probe Force Microscopy. <i>Praktische Metallographie/Practical Metallography</i> , 2016, 53, 512-521.	0.3	0