Diana Berman

List of Publications by Year
in descending order

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63	5,128	236833	128225
papers	citations	25 h-index	60 g-index

63	63	63	3964
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Controlling anisotropy of porous B4C structures through magnetic field-assisted freeze-casting. Ceramics International, 2022, 48, 6750-6757.	2.3	7
2	Layered 2D Nanomaterials to Tailor Friction and Wear in Machine Elementsâ€"A Review. Advanced Materials Interfaces, 2022, 9, .	1.9	80
3	Effect of Polymer Removal on the Morphology and Phase of the Nanoparticles in All-Inorganic Heterostructures Synthesized via Two-Step Polymer Infiltration. Molecules, 2021, 26, 679.	1.7	3
4	Thermal stability and gas absorption characteristics of ionic liquid-based solid polymer electrolytes. Journal of Chemical Physics, 2021, 154, 054902.	1.2	3
5	Al/Al2O3 metal matrix composites produced using magnetic field-assisted freeze-casting of porous ceramic structures. Journal of Materials Research, 2021, 36, 2094-2106.	1.2	7
6	Macroscale Superlubricity Accomplished by Sb2O3-MSH/C Under High Temperature. Frontiers in Chemistry, 2021, 9, 667878.	1.8	15
7	Swelling-Assisted Sequential Infiltration Synthesis of Nanoporous ZnO Films with Highly Accessible Pores and Their Sensing Potential for Ethanol. ACS Applied Materials & Interfaces, 2021, 13, 35941-35948.	4.0	10
8	Electrospun Fe3O4-PVDF Nanofiber Composite Mats for Cryogenic Magnetic Sensor Applications. Textiles, 2021, 1, 227-238.	1.8	18
9	Magnesium Silicate Hydroxideâ€"MoS₂â€"Sb₂O₃ Coating Nanomaterials for High-Temperature Superlubricity. ACS Applied Nano Materials, 2021, 4, 7097-7106.	2.4	16
10	Method for tribological experiment to study scuffing initiation on AISI 52100 steel and hard ceramic coatings. Tribology International, 2021, 160, 107001.	3.0	9
11	Tribocatalytically-activated formation of protective friction and wear reducing carbon coatings from alkane environment. Scientific Reports, 2021, 11, 20643.	1.6	14
12	Achieving Ultralow Friction and Wear by Tribocatalysis: Enabled by In-Operando Formation of Nanocarbon Films. ACS Nano, 2021, 15, 18865-18879.	7.3	42
13	Laser surface modification of porous yttria stabilized zirconia against CMAS degradation. Ceramics International, 2020, 46, 6038-6045.	2.3	16
14	Mechanical and chemical robustness of the aluminum oxide-infiltrated block copolymer films and the resulting aluminum oxide coatings. Surface and Coatings Technology, 2020, 399, 126204.	2.2	5
15	Design of porous aluminum oxide ceramics using magnetic field-assisted freeze-casting. Journal of Materials Research, 2020, 35, 2859-2869.	1.2	4
16	Self-healing ceramic coatings that operate in extreme environments: A review. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	28
17	A comparative study of calciumâ€"magnesiumâ€"aluminumâ€"silicon oxide mitigation in selected self-healing thermal barrier coating ceramics. Journal of Materials Research, 2020, 35, 2311-2320.	1.2	4
18	Canted antiferromagnetism in the quasi-one-dimensional iron chalcogenide <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">BaFe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Se</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2020, 102, .	1.1	9

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19	Micro-/Nanotopography on Bioresorbable Zinc Dictates Cytocompatibility, Bone Cell Differentiation, and Macrophage Polarization. Nano Letters, 2020, 20, 4594-4602.	4.5	55
20	Hydrogen generating patch improves skin cell viability, migration activity, and collagen expression. Engineered Regeneration, 2020, 1, 1-5.	3.0	9
21	PEO-Chameleon as a potential protective coating on cast aluminum alloys for high-temperature applications. Surface and Coatings Technology, 2020, 397, 126016.	2.2	27
22	Design of functional composite and all-inorganic nanostructured materials via infiltration of polymer templates with inorganic precursors. Journal of Materials Chemistry C, 2020, 8, 10604-10627.	2.7	29
23	Observation of room-temperature superparamagnetic behavior of Fe5Si3 nanocrystals synthesized via 50ÂkeV Fe ion implantation in silicon. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	3
24	Lubrication characteristics of wax esters from oils produced by a genetically-enhanced oilseed crop. Tribology International, 2020, 146, 106234.	3.0	10
25	Oxidation-induced healing in laser-processed thermal barrier coatings. Thin Solid Films, 2019, 688, 137481.	0.8	8
26	Nature-Guided Synthesis of Advanced Bio-Lubricants. Scientific Reports, 2019, 9, 11711.	1.6	33
27	TiCaPCON-Supported Pt- and Fe-Based Nanoparticles and Related Antibacterial Activity. ACS Applied Materials & Interfaces, 2019, 11, 28699-28719.	4.0	16
28	Block-Co-polymer-Assisted Synthesis of All Inorganic Highly Porous Heterostructures with Highly Accessible Thermally Stable Functional Centers. ACS Applied Materials & Interfaces, 2019, 11, 30154-30162.	4.0	22
29	Combined Tribological and Bactericidal Effect of Nanodiamonds as a Potential Lubricant for Artificial Joints. ACS Applied Materials & Interfaces, 2019, 11, 43500-43508.	4.0	30
30	Ironâ€Nanoparticle Driven Tribochemistry Leading to Superlubric Sliding Interfaces. Advanced Materials Interfaces, 2019, 6, 1901416.	1.9	41
31	Effect of Water Incorporation on the Lubrication Characteristics of Synthetic Oils. Tribology Letters, 2019, 67, 1.	1.2	21
32	Dramatic Enhancement of Optoelectronic Properties of Electrophoretically Deposited C₆₀â€“Graphene Hybrids. ACS Applied Materials & Interfaces, 2019, 11, 24349-24359.	4.0	27
33	Silica nanoparticles as copper corrosion inhibitors. Materials Research Express, 2019, 6, 0850e3.	0.8	17
34	Tribologically enhanced self-healing of niobium oxide surfaces. Surface and Coatings Technology, 2019, 364, 273-278.	2.2	15
35	The Structure of Amorphous and Deeply Supercooled Liquid Alumina. Frontiers in Materials, 2019, 6, .	1.2	51
36	Effect of the Micelle Opening in Self-assembled Amphiphilic Block Co-polymer Films on the Infiltration of Inorganic Precursors. Langmuir, 2019, 35, 796-803.	1.6	16

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37	Nanodiamonds for improving lubrication of titanium surfaces in simulated body fluid. Carbon, 2019, 143, 890-896.	5.4	19
38	Approaches for Achieving Superlubricity in Two-Dimensional Materials. ACS Nano, 2018, 12, 2122-2137.	7.3	364
39	Operando tribochemical formation of onion-like-carbon leads to macroscale superlubricity. Nature Communications, 2018, 9, 1164.	5.8	199
40	Inhibitor or promoter: Insights on the corrosion evolution in a graphene protected surface. Carbon, 2018, 126, 225-231.	5.4	72
41	Accessibility of the pores in highly porous alumina films synthesized via sequential infiltration synthesis. Nanotechnology, 2018, 29, 495703.	1.3	19
42	Substrate effect on electrical conductance at a nanoasperity-graphene contact. Carbon, 2018, 137, 118-124.	5.4	16
43	Effect of Substrate Support on Dynamic Graphene/Metal Electrical Contacts. Micromachines, 2018, 9, 169.	1.4	11
44	Discontinuous fatty acid elongation yields hydroxylated seed oil with improved function. Nature Plants, 2018, 4, 711-720.	4.7	43
45	Sequential Infiltration Synthesis for the Design of Low Refractive Index Surface Coatings with Controllable Thickness. ACS Nano, 2017, 11, 2521-2530.	7.3	84
46	Operando formation of an ultra-low friction boundary film from synthetic magnesium silicon hydroxide additive. Tribology International, 2017, 110, 35-40.	3.0	53
47	Effect of trapped water on the frictional behavior of graphene oxide layers sliding in water environment. Carbon, 2017, 120, 11-16.	5.4	35
48	Rapid Synthesis of Nanoporous Conformal Coatings via Plasma-Enhanced Sequential Infiltration of a Polymer Template. ACS Omega, 2017, 2, 7812-7819.	1.6	23
49	Friction and Wear of Carbon-Containing Composites. , 2017, , 550-558.		0
50	Metal-induced rapid transformation of diamond into single and multilayer graphene on wafer scale. Nature Communications, 2016, 7, 12099.	5.8	70
51	Macroscale superlubricity enabled by graphene nanoscroll formation. Science, 2015, 348, 1118-1122.	6.0	665
52	Nanoscale friction properties of graphene and graphene oxide. Diamond and Related Materials, 2015, 54, 91-96.	1.8	108
53	Graphene as a protective coating and superior lubricant for electrical contacts. Applied Physics Letters, 2014, 105, .	1.5	75
54	Graphene: a new emerging lubricant. Materials Today, 2014, 17, 31-42.	8.3	1,115

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55	Extraordinary Macroscale Wear Resistance of One Atom Thick Graphene Layer. Advanced Functional Materials, 2014, 24, 6640-6646.	7.8	251
56	Graphene: Extraordinary Macroscale Wear Resistance of One Atom Thick Graphene Layer (Adv. Funct.) Tj ETQq0 0 0 rgBT /Overlock 10 T	7.8	0
57	Surface science, MEMS and NEMS: Progress and opportunities for surface science research performed on, or by, microdevices. Progress in Surface Science, 2013, 88, 171-211.	3.8	101
58	Reduced wear and friction enabled by graphene layers on sliding steel surfaces in dry nitrogen. Carbon, 2013, 59, 167-175.	5.4	417
59	Few layer graphene to reduce wear and friction on sliding steel surfaces. Carbon, 2013, 54, 454-459.	5.4	607
60	Impact of oxygen and argon plasma exposure on the roughness of gold film surfaces. Thin Solid Films, 2012, 520, 6201-6206.	0.8	34
61	Electrical Contact Resistance and Device Lifetime Measurements of Au-RuO2-Based RF MEMS Exposed to Hydrocarbons in Vacuum and Nitrogen Environments. Tribology Letters, 2011, 44, 305-314.	1.2	18
62	Impact of adsorbed organic monolayers on vacuum electron tunneling contributions to electrical resistance at an asperity contact. Journal of Applied Physics, 2011, 110, .	1.1	9
63	Chinese Violet Cress: Novel Seed Oil Biosynthesis, Storage, and Functionality. , 0, , .		0