Mark D Losego

List of Publications by Year
in descending order

96 papers	4,434 citations	117571 34 h-index	106281 65 g-index
99 all docs	99 docs citations	99 times ranked	6936 citing authors

#	Article	IF	Citations
1	Use of <i>in situ</i> electrical conductance measurements to understand the chemical mechanisms and chamber wall effects during vapor phase infiltration doping of poly(aniline) with TiCl4â€‰+â€‰H2O. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	1
2	Atomic Layer Deposition Reinforcement of Methylcellulose Nanowire Forests. Advanced Engineering Materials, 2022, 24, .	1.6	1
3	Wash Fastness of Hybrid AlO_{<i>x</i>}-PET Fabrics Created via Vapor-Phase Infiltration. ACS Applied Polymer Materials, 2022, 4, 3304-3314.	2.0	3
4	Reliability Assessment of Ultra-low-K dielectric Material and Demonstration in Advanced Interposers. , 2022, , .		1
5	Thermally Stimulated Wettability Transformations on One-Cycle Atomic Layer Deposition-Coated Cellulosic Paper: Applications for Droplet Manipulation and Heat Patterned Paper Fluidics. ACS Applied Materials & Interfaces, 2021, 13, 13802-13812.	4.0	11
6	Thermoelectric and Charge Transport Properties of Solution-Processable and Chemically Doped Dioxythienothiophene Copolymers. ACS Applied Polymer Materials, 2021, 3, 2316-2324.	2.0	12
7	Highly Efficient Plasmon Induced Hot-Electron Transfer at Ag/TiO₂ Interface. ACS Photonics, 2021, 8, 1497-1504.	3.2	30
8	Quantifying charge carrier localization in chemically doped semiconducting polymers. Nature Materials, 2021, 20, 1414-1421.	13.3	61
9	Reactionâ€"Diffusion Transport Model to Predict Precursor Uptake and Spatial Distribution in Vapor-Phase Infiltration Processes. Chemistry of Materials, 2021, 33, 5210-5222.	3.2	19
10	Microstructure and heteroatom dictate the doping mechanism and thermoelectric properties of poly(alkyl-chalcogenophenes). Applied Physics Letters, 2021, 118, 233301.	1.5	18
11	Measuring the Glass Transition Temperature of Vapor-Phase-Infiltrated AlO<i>_x</i>-PS-<i>r</i>-PHEMA Organicâ€"Inorganic Hybrid Thin-Film Materials. Macromolecules, 2021, 54, 6790-6798.	2.2	9
12	Vapor-Phase-Infiltrated AlO<i>_x</i>/PIM-1 â€œHybrid Scaffoldsâ€•as Solution-Processable Amine Supports for CO₂ Adsorption. ACS Applied Polymer Materials, 2021, 3, 4460-4469.	2.0	7
13	Impact of trimethylaluminum exposure time on the mechanical properties of single-cycle atomic layer deposition modified cellulosic nanopaper. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 052407.	0.9	1
14	Bayesian optimization of functional output in inverse problems. Optimization and Engineering, 2021, 22, 2553-2574.	1.3	5
15	Vapor Phase Infiltration Doping of the Semiconducting Polymer Poly(aniline) with TiCl₄ + H₂O: Mechanisms, Reaction Kinetics, and Electrical and Optical Properties. ACS Applied Polymer Materials, 2021, 3, 720-729.	2.0	16
16	Re-examination of the Aqueous Stability of Atomic Layer Deposited (ALD) Amorphous Alumina (Al₂O₃) Thin Films and the Use of a Postdeposition Air Plasma Anneal to Enhance Stability. Langmuir, 2021, 37, 14509-14519.	1.6	12
17	Immobilization of molecular catalysts on solid supports via atomic layer deposition for chemical synthesis in sustainable solvents. Green Chemistry, 2021, 23, 9523-9533.	4.6	6
18	Pulsed heating atomic layer deposition (PH-ALD) for epitaxial growth of zinc oxide thin films on <i>c</i>-plane sapphire. Dalton Transactions, 2021, 51, 303-311.	1.6	2

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19	Controlling wettability, wet strength, and fluid transport selectivity of nanopaper with atomic layer deposited (ALD) sub-nanometer metal oxide coatings. Nanoscale Advances, 2020, 2, 356-367.	2.2	13
20	Vapor phase infiltration of zinc oxide into thin films of <i>cis</i>-polyisoprene rubber. Materials Advances, 2020, 1, 1695-1704.	2.6	8
21	Engineering the interfacial chemistry and mechanical properties of cellulose-reinforced epoxy composites using atomic layer deposition (ALD). Cellulose, 2020, 27, 6275-6285.	2.4	5
22	Vapor phase infiltration of aluminum oxide into benzocyclobutene-based polymer dielectrics to increase adhesion strength to thin film metal interconnects. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 033210.	0.9	8
23	Atomic Layer Deposition onto Thermoplastic Polymeric Nanofibrous Aerogel Templates for Tailored Surface Properties. ACS Nano, 2020, 14, 7999-8011.	7.3	31
24	Single-Cycle Atomic Layer Deposition on Bulk Wood Lumber for Managing Moisture Content, Mold Growth, and Thermal Conductivity. Langmuir, 2020, 36, 1633-1641.	1.6	6
25	Increased Chemical Stability of Vapor-Phase Infiltrated AlO_{<i>x</i>}â€“Poly(methyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.0	28
26	Atomic layer deposition (ALD) of nanoscale coatings on SrAl₂O₄â€based phosphor powders to prevent aqueous degradation. Journal of the American Ceramic Society, 2020, 103, 3706-3715.	1.9	16
27	Effect of Surface Ligand on Charge Separation and Recombination at CsPbI₃ Perovskite Quantum Dot/TiO₂ Interfaces. Journal of Physical Chemistry C, 2019, 123, 21415-21421.	1.5	14
28	Vapor Phase Infiltration of Metal Oxides into Nanoporous Polymers for Organic Solvent Separation Membranes. Chemistry of Materials, 2019, 31, 5509-5518.	3.2	109
29	Characterization of Electronic Transport through Amorphous TiO₂ Produced by Atomic Layer Deposition. Journal of Physical Chemistry C, 2019, 123, 20116-20129.	1.5	68
30	Thermoelectrics that bend but donâ€™t break. Nature Materials, 2019, 18, 3-4.	13.3	2
31	Atomic layer deposition (ALD) of subnanometer inorganic layers on natural cotton to enhance oil sorption performance in marine environments. Journal of Materials Research, 2019, 34, 563-570.	1.2	18
32	Atomic layer deposition of ZnO electron transporting layers directly onto the active layer of organic solar cells. Organic Electronics, 2019, 64, 37-46.	1.4	28
33	Bacterial Growth and Death on Cotton Fabrics Conformally Coated with ZnO Thin Films of Varying Thicknesses via Atomic Layer Deposition (ALD). Jom, 2019, 71, 178-184.	0.9	19
34	Effects of Al2O3 atomic layer deposition on interfacial structure and electron transfer dynamics at Re-bipyridyl complex/TiO2 interfaces. Chemical Physics, 2018, 512, 68-74.	0.9	6
35	Aqueous Zinc Compounds as Residual Antimicrobial Agents for Textiles. ACS Applied Materials & Interfaces, 2018, 10, 7709-7716.	4.0	31
36	Density and size effects on the thermal conductivity of atomic layer deposited TiO2 and Al2O3 thin films. Thin Solid Films, 2018, 650, 71-77.	0.8	36

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37	Diphenylisobenzofuran Bound to Nanocrystalline Metal Oxides: Excimer Formation, Singlet Fission, Electron Injection, and Low Energy Sensitization. Journal of Physical Chemistry C, 2018, 122, 28478-28490.	1.5	18
38	High-Temperature And Moisture-Ageing Reliability of High-Density Power Packages For Electric Vehicles. , 2018, , .		4
39	A physiochemical processing kinetics model for the vapor phase infiltration of polymers: measuring the energetics of precursor-polymer sorption, diffusion, and reaction. Physical Chemistry Chemical Physics, 2018, 20, 21506-21514.	1.3	41
40	Variation in the density, optical polarizabilities, and crystallinity of TiO2 thin films deposited via atomic layer deposition from 38 to 150â€‰Â°C using the titanium tetrachloride-water reaction. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	28
41	Printed, metallic thermoelectric generators integrated with pipe insulation for powering wireless sensors. Applied Energy, 2017, 208, 758-765.	5.1	71
42	Stabilization of Polyoxometalate Water Oxidation Catalysts on Hematite by Atomic Layer Deposition. ACS Applied Materials & Interfaces, 2017, 9, 35048-35056.	4.0	39
43	Vapor phase infiltration (VPI) for transforming polymers into organicâ€“inorganic hybrid materials: a critical review of current progress and future challenges. Materials Horizons, 2017, 4, 747-771.	6.4	142
44	Infusing Inorganics into the Subsurface of Polymer Redistribution Layer Dielectrics for Improved Adhesion to Metals Interconnects. , 2017, , .		4
45	Selective area epitaxy of magnesium oxide thin films on gallium nitride surfaces. Journal of Materials Research, 2016, 31, 36-45.	1.2	3
46	Electrical Conductivity, Thermal Behavior, and Seebeck Coefficient of Conductive Films for Printed Thermoelectric Energy Harvesting Systems. Journal of Electronic Materials, 2016, 45, 5561-5569.	1.0	14
47	Atomic Layer Deposition for Sensitized Solar Cells: Recent Progress and Prospects. Advanced Materials Interfaces, 2016, 3, 1600354.	1.9	18
48	Thin Films: Atomic Layer Deposition for Sensitized Solar Cells: Recent Progress and Prospects (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.9	2
49	Copper Benzenetricarboxylate Metalâ€“Organic Framework Nucleation Mechanisms on Metal Oxide Powders and Thin Films formed by Atomic Layer Deposition. ACS Applied Materials & Interfaces, 2016, 8, 9514-9522.	4.0	60
50	Tree-based control software for multilevel sequencing in thin film deposition applications. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, .	0.6	25
51	Conformal and highly adsorptive metalâ€“organic framework thin films via layer-by-layer growth on ALD-coated fiber mats. Journal of Materials Chemistry A, 2015, 3, 1458-1464.	5.2	100
52	Facile Conversion of Hydroxy Double Salts to Metalâ€“Organic Frameworks Using Metal Oxide Particles and Atomic Layer Deposition Thin-Film Templates. Journal of the American Chemical Society, 2015, 137, 13756-13759.	6.6	174
53	Effect of Meso- and Micro-Porosity in Carbon Electrodes on Atomic Layer Deposition of Pseudocapacitive V₂O₅ for High Performance Supercapacitors. Chemistry of Materials, 2015, 27, 6524-6534.	3.2	78
54	Density dependence of the room temperature thermal conductivity of atomic layer deposition-grown amorphous alumina (Al2O3). Applied Physics Letters, 2014, 104, .	1.5	62

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55	Metalâ€"Organic Frameworks: Highly Adsorptive, MOFâ€Functionalized Nonwoven Fiber Mats for Hazardous Gas Capture Enabled by Atomic Layer Deposition (Adv. Mater. Interfaces 4/2014). Advanced Materials Interfaces, 2014, 1, .	1.9	5
56	High performance photocatalytic metal oxide synthetic bi-component nanosheets formed by atomic layer deposition. Materials Horizons, 2014, 1, 419.	6.4	16
57	Stabilizing chromophore binding on TiO₂ for long-term stability of dye-sensitized solar cells using multicomponent atomic layer deposition. Physical Chemistry Chemical Physics, 2014, 16, 8615-8622.	1.3	34
58	Highly Adsorptive, MOFâ€Functionalized Nonwoven Fiber Mats for Hazardous Gas Capture Enabled by Atomic Layer Deposition. Advanced Materials Interfaces, 2014, 1, 1400040.	1.9	99
59	Visible Light Driven Benzyl Alcohol Dehydrogenation in a Dye-Sensitized Photoelectrosynthesis Cell. Journal of the American Chemical Society, 2014, 136, 9773-9779.	6.6	80
60	Smooth cubic commensurate oxides on gallium nitride. Journal of Applied Physics, 2014, 115, .	1.1	9
61	Atomic Layer Deposition of TiO₂ on Mesoporous nanoITO: Conductive Coreâ€"Shell Photoanodes for Dye-Sensitized Solar Cells. Nano Letters, 2014, 14, 3255-3261.	4.5	71
62	Highly Conductive and Conformal Poly(3,4-ethylenedioxythiophene) (PEDOT) Thin Films via Oxidative Molecular Layer Deposition. Chemistry of Materials, 2014, 26, 3471-3478.	3.2	92
63	Electrochemically tunable thermal conductivity of lithium cobalt oxide. Nature Communications, 2014, 5, 4035.	5.8	137
64	Stabilizing molecular sensitizers in aqueous environs. Nano Energy, 2013, 2, 1067-1069.	8.2	16
65	Hydrogel-Based Glucose Sensors: Effects of Phenylboronic Acid Chemical Structure on Response. Chemistry of Materials, 2013, 25, 3239-3250.	3.2	167
66	Stabilizing Small Molecules on Metal Oxide Surfaces Using Atomic Layer Deposition. Nano Letters, 2013, 13, 4802-4809.	4.5	85
67	Three-dimensional self-assembled photonic crystals with high temperature stability for thermal emission modification. Nature Communications, 2013, 4, 2630.	5.8	204
68	Mid-infrared surface plasmon resonance in zinc oxide semiconductor thin films. Applied Physics Letters, 2013, 102, .	1.5	69
69	Solar water splitting in a molecular photoelectrochemical cell. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20008-20013.	3.3	203
70	Optimizing phase and microstructure of chemical solution-deposited bismuth ferrite (BiFeO3) thin films to reduce DC leakage. Journal of Materials Science, 2013, 48, 1578-1584.	1.7	21
71	Breaking through barriers. Nature Materials, 2013, 12, 382-384.	13.3	21
72	Ultralow Thermal Conductivity in Organoclay Nanolaminates Synthesized via Simple Self-Assembly. Nano Letters, 2013, 13, 2215-2219.	4.5	68

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73	Stabilization of [Ru(bpy)₂(4,4â€²-(PO₃H₂)bpy)]²⁺ on Mesoporous TiO₂ with Atomic Layer Deposition of Al₂O₃. Chemistry of Materials, 2013, 25, 3-5.	3.2	101
74	Crossing the divide between homogeneous and heterogeneous catalysis in water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20918-20922.	3.3	123
75	Lowâ€Temperature Atomic Layer Deposition of Tungsten using Tungsten Hexafluoride and Highlyâ€diluted Silane in Argon. Chemical Vapor Deposition, 2013, 19, 161-166.	1.4	24
76	Base Metal Bottom Electrodes. , 2013, , 571-592.		1
77	Molecular Tailoring of Interfacial Adhesion Using Self-Assembled Monolayers. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 21-27.	0.3	0
78	Interpreting picosecond acoustics in the case of low interface stiffness. Review of Scientific Instruments, 2012, 83, 114902.	0.6	59
79	Effects of chemical bonding on heat transport across interfaces. Nature Materials, 2012, 11, 502-506.	13.3	560
80	Electrodeposited 3D Tungsten Photonic Crystals with Enhanced Thermal Stability. Chemistry of Materials, 2011, 23, 4783-4788.	3.2	77
81	Solvent Quality Effects on Scaling Behavior of Poly(methyl methacrylate) Brushes in the Moderate- and High-Density Regimes. Langmuir, 2011, 27, 3698-3702.	1.6	67
82	Characterizing the Molecular Order of Phosphonic Acid Self-Assembled Monolayers on Indium Tin Oxide Surfaces. Langmuir, 2011, 27, 11883-11888.	1.6	43
83	Surfactant-enabled epitaxy through control of growth mode with chemical boundary conditions. Nature Communications, 2011, 2, 461.	5.8	23
84	Testing the minimum thermal conductivity model for amorphous polymers using high pressure. Physical Review B, 2011, 83, .	1.1	87
85	Reproducibility and Ferroelectric Fatigue of Lead Zirconate Titanate Thin Films Deposited Directly on Copper Via a Composite Gel Architecture. Journal of the American Ceramic Society, 2010, 93, 3983-3985.	1.9	9
86	Critical examination of growth rate for magnesium oxide (MgO) thin films deposited by molecular beam epitaxy with a molecular oxygen flux. Journal of Materials Research, 2010, 25, 670-679.	1.2	11
87	Interfacial thermal conductance in spun-cast polymer films and polymer brushes. Applied Physics Letters, 2010, 97, .	1.5	87
88	Conductive oxide thin films: Model systems for understanding and controlling surface plasmon resonance. Journal of Applied Physics, 2009, 106, .	1.1	89
89	Defect chemistry of nano-grained barium titanate films. Journal of Materials Science, 2008, 43, 38-42.	1.7	9
90	Epitaxial growth of the metastable phase ytterbium monoxide on gallium nitride surfaces. Journal of Crystal Growth, 2008, 310, 51-56.	0.7	10

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91	Importance Of Solution Chemistry In Preparing Solâ€“Gel PZT Thin Films Directly On Copper Surfaces. Chemistry of Materials, 2008, 20, 303-307.	3.2	26
92	Epitaxial calcium oxide films deposited on gallium nitride surfaces. Journal of Vacuum Science & Technology B, 2007, 25, 1029.	1.3	13
93	Synthesis of polycrystalline ytterbium monoxide thin films by molecular beam deposition. Journal of Vacuum Science & Technology B, 2006, 24, 2111.	1.3	6
94	Ferroelectric response from lead zirconate titanate thin films prepared directly on low-resistivity copper substrates. Applied Physics Letters, 2005, 86, 172906.	1.5	61
95	Mist Deposition of Micron-Thick Lead Zirconate Titanate Films. Materials Research Society Symposia Proceedings, 2003, 784, 11281.	0.1	1
96	Lead Strontium Zirconate Titanate (PSZT) Thin Films for Tunable Dielectric Applications. , 0, , 1-8.		0