

John Roehling

List of Publications by Year in descending order

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26
papers

1,517
citations

567281

15
h-index

580821

25
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all docs

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docs citations

26
times ranked

2247
citing authors

#	ARTICLE	IF	CITATIONS
1	A mesoscopic digital twin that bridges length and time scales for control of additively manufactured metal microstructures. <i>JPhys Materials</i> , 2021, 4, 034012.	4.2	14
2	Nondiffractive beam shaping for enhanced optothermal control in metal additive manufacturing. <i>Science Advances</i> , 2021, 7, eabg9358.	10.3	47
3	Physics of large-area pulsed laser powder bed fusion. <i>Additive Manufacturing</i> , 2021, 46, 102186.	3.0	5
4	Residual stress analysis of in situ surface layer heating effects on laser powder bed fusion of 316L stainless steel. <i>Additive Manufacturing</i> , 2021, 47, 102252.	3.0	8
5	Ultra-low-density digitally architected carbon with a strutted tube-in-tube structure. <i>Nature Materials</i> , 2021, 20, 1498-1505.	27.5	28
6	Controlling melt pool shape, microstructure and residual stress in additively manufactured metals using modified laser beam profiles. <i>Procedia CIRP</i> , 2020, 94, 200-204.	1.9	11
7	Fabrication and 3D tomographic characterization of nanowire arrays and meshes with tunable dimensions from shear-aligned block copolymers. <i>Soft Matter</i> , 2019, 15, 4898-4904.	2.7	1
8	Reducing residual stress by selective large-area diode surface heating during laser powder bed fusion additive manufacturing. <i>Additive Manufacturing</i> , 2019, 28, 228-235.	3.0	44
9	Spatial modulation of laser sources for microstructural control of additively manufactured metals. <i>Procedia CIRP</i> , 2018, 74, 607-610.	1.9	6
10	Hierarchical spidroin micellar nanoparticles as the fundamental precursors of spider silks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 11507-11512.	7.1	46
11	In situ dynamic TEM characterization of unsteady crystallization during laser processing of amorphous germanium. <i>Acta Materialia</i> , 2018, 143, 13-19.	7.9	10
12	Modulating laser intensity profile ellipticity for microstructural control during metal additive manufacturing. <i>Acta Materialia</i> , 2017, 128, 197-206.	7.9	189
13	Rapid solidification growth mode transitions in Al-Si alloys by dynamic transmission electron microscopy. <i>Acta Materialia</i> , 2017, 131, 22-30.	7.9	58
14	Direct Write Optical Patterning of P3HT Films Beyond the Diffraction Limit. <i>Advanced Materials</i> , 2017, 29, 1603221.	21.0	40
15	Comparison of solution-mixed and sequentially processed P3HT:F4TCNQ films: effect of doping-induced aggregation on film morphology. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3454-3466.	5.5	256
16	Genesis of Delaminated-Zeolite Morphology: 3-D Characterization of Changes by STEM Tomography. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2598-2602.	4.6	5
17	Material profile influences in bulk-heterojunctions. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 1291-1300.	2.1	9
18	P3HT:PCBM Bulk-Heterojunctions: Observing Interfacial and Charge Transfer States with Surface Photovoltage Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 14723-14731.	3.1	44

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19	Advanced 3-D Reconstruction Algorithms for Electron Tomography. <i>Microscopy and Microanalysis</i> , 2014, 20, 794-795.	0.4	4
20	The effect of 2,3,5,6-tetrafluoro-7,7,8,8-tetracyanoquinodimethane charge transfer dopants on the conformation and aggregation of poly(3-hexylthiophene). <i>Journal of Materials Chemistry C</i> , 2013, 1, 5638.	5.5	108
21	Quantifying organic solar cell morphology: a computational study of three-dimensional maps. <i>Energy and Environmental Science</i> , 2013, 6, 3060.	30.8	44
22	Packing Dependent Electronic Coupling in Single Poly(3-hexylthiophene) H- and J-Aggregate Nanofibers. <i>Journal of Physical Chemistry B</i> , 2013, 117, 4478-4487.	2.6	73
23	Three-Dimensional Concentration Mapping of Organic Blends. <i>Advanced Functional Materials</i> , 2013, 23, 2115-2122.	14.9	64
24	Synthesis and Optoelectronic Properties of Pyrite (FeS ₂) Nanocrystals Thin Films for Photovoltaic Applications. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2013, 8, 260-266.	0.5	9
25	J-Aggregate Behavior in Poly-3-hexylthiophene Nanofibers. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 259-263.	4.6	258
26	Controlling microstructure in poly(3-hexylthiophene) nanofibers. <i>Journal of Materials Chemistry</i> , 2012, 22, 2498-2506.	6.7	136