

David H Wang

List of Publications by Year in descending order

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47
papers

1,928
citations

186209

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254106

43
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48
all docs

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docs citations

48
times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Role of Alicyclic Conformation-Isomerization in the Photomechanical Performance of Azobenzene-Functionalized Cross-Linked Polyimides Containing Tetra-Substituted Cyclohexane Moieties. <i>ACS Macro Letters</i> , 2021, 10, 278-283.	2.3	17
2	Intermolecular Interactions and Intramolecular Motions in Photomechanical Effect: Nonlinear Thermo- and Photomechanical Behaviors of Azobenzene-Functionalized Amide-Imide Block Copolymers. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 48127-48140.	4.0	8
3	Origami-Inspired Fabrication: Self-Folding or Self-Unfolding of Cross-Linked-Polyimide Objects in Extremely Hot Ambience. <i>ACS Macro Letters</i> , 2019, 8, 546-552.	2.3	20
4	High-Temperature and High-Energy-Density Dipolar Glass Polymers Based on Sulfonylated Poly(2,6-dimethyl-1,4-phenylene oxide). <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1528-1531.	7.2	125
5	Autonomous Motility of Polymer Films. <i>Advanced Materials</i> , 2018, 30, 1705616.	11.1	25
6	The contribution of hydrogen bonding to the photomechanical response of azobenzene-functionalized polyamides. <i>Journal of Materials Chemistry C</i> , 2018, 6, 5964-5974.	2.7	32
7	Relaxation Dynamics and Strain Persistency of Azobenzene-Functionalized Polymers and Actuators. <i>Macromolecular Materials and Engineering</i> , 2017, 302, 1700256.	1.7	5
8	Photomechanical Deformation of Azobenzene-Functionalized Polyimides Synthesized with Bulky Substituents. <i>ACS Macro Letters</i> , 2017, 6, 1432-1437.	2.3	30
9	Hygromorphic Polymers: Synthesis, Retro-Michael Reaction, and Humidity-Driven Actuation of Ester-Sulfonyl Polyimides and Thermally Derived Copolyimides. <i>Macromolecules</i> , 2016, 49, 3286-3299.	2.2	16
10	Discrete-state photomechanical actuators. <i>Extreme Mechanics Letters</i> , 2016, 9, 45-54.	2.0	14
11	Synthesis and characterization of high nitrile content polyimides as dielectric films for electrical energy storage. <i>Journal of Polymer Science Part A</i> , 2015, 53, 422-436.	2.5	83
12	Photopiezoelectric Composites of Azobenzene-Functionalized Polyimides and Polyvinylidene Fluoride. <i>Macromolecular Rapid Communications</i> , 2014, 35, 2050-2056.	2.0	21
13	Designing light responsive bistable arches for rapid, remotely triggered actuation. <i>Proceedings of SPIE</i> , 2014, , .	0.8	5
14	Enhancing electrical energy storage using polar polyimides with nitrile groups directly attached to the main chain. <i>Journal of Materials Chemistry A</i> , 2014, 2, 20683-20696.	5.2	90
15	Azobenzene-functionalized polyimides as wireless actuators. <i>Polymer</i> , 2014, 55, 5915-5923.	1.8	26
16	Impact of Backbone Rigidity on the Photomechanical Response of Glassy, Azobenzene-Functionalized Polyimides. <i>Macromolecules</i> , 2014, 47, 659-667.	2.2	81
17	Molecular Engineering of Azobenzene-Functionalized Polyimides To Enhance Both Photomechanical Work and Motion. <i>Chemistry of Materials</i> , 2014, 26, 5223-5230.	3.2	45
18	Photomechanical Response of Pre-strained Azobenzene-Functionalized Polyimide Materials. <i>Macromolecular Chemistry and Physics</i> , 2013, 214, 1189-1194.	1.1	36

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19	Polymer design for high temperature shape memory: Low crosslink density polyimides. <i>Polymer</i> , 2013, 54, 391-402.	1.8	90
20	Synthesis and characterization of unsymmetrical benzonitrile-containing polyimides: Viscosity-lowering effect and dielectric properties. <i>Journal of Polymer Science Part A</i> , 2013, 51, 4998-5011.	2.5	30
21	High-Temperature Dielectric Polyimide Films for Energy Storage Applications. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1541, 72201.	0.1	1
22	Contactless, photoinitiated snap-through in azobenzene-functionalized polymers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 18792-18797.	3.3	92
23	Flexural-Torsional Photomechanical Responses in Azobenzene-Containing Crosslinked Polyimides. <i>Macromolecular Materials and Engineering</i> , 2012, 297, 1167-1174.	1.7	25
24	Tailoring the Photomechanical Response of Glassy, Azobenzene-Functionalized Polyimides by Physical Aging. <i>Macromolecules</i> , 2012, 45, 7527-7534.	2.2	45
25	Enhancement of Photogenerated Mechanical Force in Azobenzene-Functionalized Polyimides. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 4117-4121.	7.2	99
26	Photomechanical Response of Glassy Azobenzene Polyimide Networks. <i>Macromolecules</i> , 2011, 44, 3840-3846.	2.2	122
27	Electrothermal Polymer Nanocomposite Actuators. <i>Advanced Materials</i> , 2010, 22, 3430-3435.	11.1	60
28	Dielectric characteristics of polyimide CP2. <i>Polymer</i> , 2010, 51, 3139-3146.	1.8	37
29	Nanocomposites based on vapor-grown carbon nanofibers and an epoxy: Functionalization, preparation and characterization. <i>European Polymer Journal</i> , 2010, 46, 1404-1416.	2.6	51
30	In-situ synthesis and thermal-electrical properties of CP2- polyimide/pristine and amine-functionalized carbon nanofiber composites. , 2009, , .		0
31	Direct Measurement of the Percolation Probability in Carbon Nanofiber-Polyimide Nanocomposites. <i>Physical Review Letters</i> , 2009, 102, 116601.	2.9	34
32	In-Situ Nanocomposite Synthesis: Arylcarbonylation and Grafting of Primary Diamond Nanoparticles with a Poly(ether-ketone) in Polyphosphoric Acid. <i>Macromolecules</i> , 2009, 42, 114-124.	2.2	41
33	Synthesis and characterization of aromatic polyesters containing multiple n-alkyl side chains. <i>Polymer</i> , 2008, 49, 3020-3028.	1.8	13
34	Thermal-Electrical Character of in Situ Synthesized Polyimide-Grafted Carbon Nanofiber Composites. <i>Macromolecules</i> , 2008, 41, 8053-8062.	2.2	58
35	Large-scale self-assembly of dispersed nanodiamonds. <i>Journal of Materials Chemistry</i> , 2008, 18, 1347.	6.7	83
36	Solubilization of Carbon Nanofibers with a Covalently Attached Hyperbranched Poly(ether ketone). <i>Chemistry of Materials</i> , 2008, 20, 1502-1515.	3.2	24

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37	Alternative Approach to an AB ₂ Monomer for Hyperbranched Poly(Arylene Ether Ketone) Tj ETQq1 1 0,784314 rgBT /Over	1.1	38
38	Direct imaging of current paths in multiwalled carbon nanofiber polymer nanocomposites using conducting-tip atomic force microscopy. Journal of Applied Physics, 2008, 104, .	1.1	38
39	Nanocomposites Derived from a Low-Color Aromatic Polyimide (CP2) and Amine-Functionalized Vapor-Grown Carbon Nanofibers: In Situ Polymerization and Characterization. Macromolecules, 2007, 40, 6100-6111.	2.2	44
40	Synthesis and Properties of Polyimides Containing Multiple Alkyl Side Chains. Macromolecules, 2007, 40, 889-900.	2.2	42
41	In-Situ Grafting of Hyperbranched Poly(ether ketone)s onto Multiwalled Carbon Nanotubes via the A3 + B2 Approach. Macromolecules, 2007, 40, 4474-4480.	2.2	46
42	Simplified tube form factor for analysis of small-angle scattering data from carbon nanotube filled systems. Journal of Applied Crystallography, 2007, 40, s88-s92.	1.9	30
43	Synthesis of stretchable polyetherimides containing multiple alkyl side chains. Polymer, 2007, 48, 2572-2584.	1.8	10
44	Thermally reactive phenylethynyl-terminated bis(benzylester) and bis(amide) monomers based on semi-enzymatically produced 6-phenylethynyl picolinic acid. Polymer, 2006, 47, 1197-1206.	1.8	8
45	Grafting of vapor-grown carbon nanofibers (VGCNF) with a hyperbranched poly(ether-ketone). Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 132, 103-107.	1.7	20
46	Multiwalled carbon nanotubes and nanofibers grafted with polyetherketones in mild and viscous polymeric acid. Polymer, 2006, 47, 1132-1140.	1.8	66
47	Nanodiamond/Polyimide High Temperature Dielectric Films for Energy Storage Applications. Advanced Materials Research, 0, 785-786, 410-416.	0.3	2