

Kenneth R Carter

List of Publications by Year in descending order

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123
papers

5,393
citations

71102

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times ranked

6506
citing authors

#	ARTICLE	IF	CITATIONS
1	Organic Materials and Thin-Film Structures for Cross-Point Memory Cells Based on Trapping in Metallic Nanoparticles. <i>Advanced Functional Materials</i> , 2005, 15, 1933-1939.	14.9	352
2	Templating Nanoporosity in Thin-Film Dielectric Insulators. <i>Advanced Materials</i> , 1998, 10, 1049-1053.	21.0	310
3	Self-Encapsulation of Poly-2,7-fluorenes in a Dendrimer Matrix. <i>Journal of the American Chemical Society</i> , 2001, 123, 6965-6972.	13.7	284
4	High-Resolution Soft Lithography: Enabling Materials for Nanotechnologies. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 5796-5799.	13.8	261
5	Low-Dielectric, Nanoporous Organosilicate Films Prepared via Inorganic/Organic Polymer Hybrid Templates. <i>Chemistry of Materials</i> , 1999, 11, 3080-3085.	6.7	214
6	A Versatile Method for Tuning the Chemistry and Size of Nanoscopic Features by Living Free Radical Polymerization. <i>Journal of the American Chemical Society</i> , 2003, 125, 3831-3838.	13.7	177
7	Nanoscale patterning of magnetic islands by imprint lithography using a flexible mold. <i>Applied Physics Letters</i> , 2002, 81, 1483-1485.	3.3	151
8	Nanoporous Polyimides Derived from Highly Fluorinated Polyimide/Poly(propylene Oxide) Copolymers. <i>Chemistry of Materials</i> , 2001, 13, 213-221.	6.7	134
9	Stable and Efficient Fluorescent Red and Green Dyes for External and Internal Conversion of Blue OLED Emission. <i>Chemistry of Materials</i> , 2003, 15, 2305-2312.	6.7	128
10	Superhydrophobic Surfaces from Hierarchically Structured Wrinkled Polymers. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 11066-11073.	8.0	126
11	Carborane-Containing Polyfluorene: Carborane in the Main Chain. <i>Macromolecules</i> , 2009, 42, 8594-8598.	4.8	124
12	Carborane-Containing Poly(fluorene): Response to Solvent Vapors and Amines. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 1796-1799.	8.0	118
13	Effects of Modulus and Surface Chemistry of Thiol-Ene Photopolymers in Nanoimprinting. <i>Nano Letters</i> , 2007, 7, 233-237.	9.1	101
14	Underwater Superoleophobic Surfaces Prepared from Polymer Zwitterion/Dopamine Composite Coatings. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500521.	3.7	100
15	Effect of Carborane on the Optoelectronic and Device-Level Properties of Poly(fluorene)s. <i>ACS Macro Letters</i> , 2012, 1, 469-472.	4.8	81
16	Saturated and Multi-Colored Electroluminescence from Quantum Dots Based Light Emitting Electrochemical Cells. <i>Advanced Functional Materials</i> , 2014, 24, 4484-4490.	14.9	80
17	UV-nanoimprint lithography as a tool to develop flexible microfluidic devices for electrochemical detection. <i>Lab on A Chip</i> , 2015, 15, 3086-3094.	6.0	78
18	Amorphous Poly-2,7-fluorene Networks. <i>Chemistry of Materials</i> , 2001, 13, 4285-4289.	6.7	76

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19	Polyfluorene with p-carborane in the backbone. <i>Chemical Communications</i> , 2009, , 4950.	4.1	71
20	Nanoimprint Lithography for Functional Three-Dimensional Patterns. <i>Advanced Materials</i> , 2010, 22, 3608-3614.	21.0	71
21	Large-area, continuous roll-to-roll nanoimprinting with PFPE composite molds. <i>Nanotechnology</i> , 2013, 24, 505307.	2.6	68
22	Polyimide Nanofoams from Aliphatic Polyester-Based Copolymers. <i>Chemistry of Materials</i> , 1998, 10, 39-49.	6.7	61
23	Nickel(0)-Mediated Coupling Polymerizations via Microwave-Assisted Chemistry. <i>Macromolecules</i> , 2002, 35, 6757-6759.	4.8	61
24	Patterned Polyfluorene Surfaces by Functionalization of Nanoimprinted Polymeric Features. <i>Langmuir</i> , 2006, 22, 2411-2414.	3.5	61
25	Chain-End Functionalized Nanopatterned Polymer Brushes Grown via in Situ Nitroxide Free Radical Exchange. <i>ACS Nano</i> , 2008, 2, 719-727.	14.6	61
26	Electroluminescent Networks via Photo "Click" Chemistry. <i>Journal of the American Chemical Society</i> , 2011, 133, 20546-20551.	13.7	58
27	Solvent-Assisted Soft Nanoimprint Lithography for Structured Bilayer Heterojunction Organic Solar Cells. <i>Langmuir</i> , 2011, 27, 11251-11258.	3.5	57
28	Nanoimprinted Patterned Pillar Substrates for Surface-Enhanced Raman Scattering Applications. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22106-22113.	8.0	57
29	Device Fabrication by Easy Soft Imprint Nano-Lithography. <i>Chemistry of Materials</i> , 2008, 20, 4595-4601.	6.7	56
30	Synthesis of Polyfluorenes with Pendant Silylcarboranes. <i>Macromolecules</i> , 2009, 42, 512-516.	4.8	56
31	Polyimide Nanofoams Based on Ordered Polyimides Derived from Poly(amic alkyl esters): PMDA/4-BDAF. <i>Chemistry of Materials</i> , 1997, 9, 105-118.	6.7	54
32	High-temperature polyimide nanofoams for microelectronic applications. <i>Reactive and Functional Polymers</i> , 1996, 30, 43-53.	4.1	52
33	Aryl fluoride monomers in nucleophilic aromatic substitution polymerization: evaluation of monomer reactivity by ¹⁹ F NMR spectroscopy. <i>Macromolecules</i> , 1995, 28, 6462-6470.	4.8	49
34	Synthesis of 1,2,4-triazole poly(aryl ethers) via heterocyclic-activated displacement polymerization. <i>Macromolecules</i> , 1993, 26, 2209-2215.	4.8	48
35	Intrinsic and Extrinsic Parameters for Controlling the Growth of Organic Single-Crystalline Nanopillars in Photovoltaics. <i>Nano Letters</i> , 2014, 14, 5547-5554.	9.1	47
36	Nanocellulose Aerogels Inspired by Frozen Tofu. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 6387-6391.	6.7	47

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37	Electroluminescent devices based on cross-linked polymer blends. <i>Journal of Applied Physics</i> , 2003, 94, 3061-3068.	2.5	44
38	Design and Synthesis of New Polymeric Materials for Organic Nonvolatile Electrical Bistable Storage Devices: A Poly(biphenylmethylene)s. <i>Macromolecules</i> , 2005, 38, 4147-4156.	4.8	44
39	Directed Self-Assembly of Block Copolymer Thin Films Using Minimal Topographic Patterns. <i>ACS Nano</i> , 2016, 10, 7915-7925.	14.6	43
40	Synthesis of Amine-Terminated Aliphatic Polycarbonates via Al(Et) ₂ (OR)-Initiated Polymerizations. <i>Macromolecules</i> , 1997, 30, 6074-6076.	4.8	42
41	Stimuli-Responsive Surfaces Utilizing Cleavable Polymer Brush Layers. <i>Macromolecules</i> , 2009, 42, 8655-8660.	4.8	42
42	Heterocycle-activated aromatic nucleophilic substitution: poly(aryl ether phenylquinoxalines). 2. <i>Macromolecules</i> , 1993, 26, 4833-4839.	4.8	41
43	Electrochemical Deposition of ZnO Hierarchical Nanostructures from Hydrogel Coated Electrodes. <i>Journal of the Electrochemical Society</i> , 2013, 160, D156-D162.	2.9	41
44	Nanoimprinted Polyethyleneimine: A Multimodal Template for Nanoparticle Assembly and Immobilization. <i>Advanced Functional Materials</i> , 2009, 19, 2937-2942.	14.9	40
45	Patterned Polymer Films via Reactive Silane Infusion-Induced Wrinkling. <i>Langmuir</i> , 2013, 29, 4632-4639.	3.5	37
46	Printed microfluidic sweat sensing platform for cortisol and glucose detection. <i>Lab on A Chip</i> , 2021, 22, 156-169.	6.0	37
47	Stereodirective Effects in Mixed Substituent Vinyloxy-cyclophosphazenes. <i>Inorganic Chemistry</i> , 2009, 48, 7476-7481.	4.0	36
48	Emissive Conjugated Polymer Networks with Tunable Band-Gaps via Thiol-ene Click Chemistry. <i>Chemistry of Materials</i> , 2012, 24, 4410-4416.	6.7	35
49	Scaling Up Nature: Large Area Flexible Biomimetic Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 23439-23444.	8.0	34
50	Systematic Fluorination of P3HT: Synthesis of P(3HT-co-3H4FT)s by Direct Arylation Polymerization, Characterization, and Device Performance in OPVs. <i>Macromolecules</i> , 2016, 49, 3028-3037.	4.8	32
51	Poly[(vinyloxy)cyclophosphazenes]. <i>Macromolecules</i> , 2001, 34, 2870-2875.	4.8	30
52	Nickel-Catalyzed Coupling of Aryl Bromides in the Presence of Alkylolithium Reagents. <i>Chemistry - A European Journal</i> , 2008, 14, 6845-6848.	3.3	29
53	Synthesis of polymeric core-shell particles using surface-initiated living free-radical polymerization. <i>Journal of Polymer Science Part A</i> , 2007, 45, 1575-1584.	2.3	27
54	Suspended Multiwall Carbon Nanotube-Based Infrared Sensors via Roll-to-Roll Fabrication. <i>Advanced Optical Materials</i> , 2014, 2, 581-587.	7.3	26

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55	Direct Imprinting of Scalable, High-Performance Woodpile Electrodes for Three-Dimensional Lithium-Ion Nanobatteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 5447-5454.	8.0	25
56	Synthetic Emission Tuning of Carborane-Containing Poly(dihexylfluorene)s. <i>Macromolecules</i> , 2019, 52, 7951-7960.	4.8	25
57	Controlling Optoelectronic Behavior in Poly(fluorene) Networks Using Thiol-ene Photo-Click Chemistry. <i>Macromolecules</i> , 2015, 48, 1711-1722.	4.8	24
58	Three-Dimensional CeO ₂ Woodpile Nanostructures To Enhance Performance of Enzymatic Glucose Biosensors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 1821-1828.	8.0	24
59	Disubstituted Polyacetylene Brushes Grown via Surface-Directed Tungsten-Catalyzed Polymerization. <i>Langmuir</i> , 2007, 23, 8288-8290.	3.5	23
60	High-resolution soft lithography of thin film resists enabling nanoscopic pattern transfer. <i>Soft Matter</i> , 2008, 4, 168-176.	2.7	22
61	Photochemical Attachment of Reactive Cross-Linked Polymer Films to Si/SiO ₂ Surfaces and Subsequent Polymer Brush Growth. <i>Chemistry of Materials</i> , 2006, 18, 3425-3431.	6.7	21
62	Soluble High-Temperature Polyterephthalamides. <i>Macromolecules</i> , 1998, 31, 208-209.	4.8	20
63	Patterned Layers of a Semiconducting Polymer via Imprinting and Microwave-Assisted Grafting. <i>Small</i> , 2008, 4, 1176-1182.	10.0	20
64	Surface-Grafted conjugated polymers for hybrid cellulose materials. <i>Journal of Polymer Science Part A</i> , 2011, 49, 3004-3013.	2.3	20
65	One-pot synthesis of hybrid TiO ₂ -polyaniline nanoparticles by self-catalyzed hydroamination and oxidative polymerization from TiO ₂ -methacrylic acid nanoparticles. <i>Chemical Communications</i> , 2011, 47, 10710.	4.1	20
66	Triggered Decomposition of Polymeric Nanoparticles. <i>Macromolecules</i> , 2007, 40, 7874-7877.	4.8	19
67	Degradation kinetics of acid-sensitive hydrogels. <i>Polymer Degradation and Stability</i> , 2015, 121, 303-310.	5.8	19
68	Surface Grafting of Vinyl-Functionalized Poly(fluorene)s via Thiol-ene Click Chemistry. <i>Langmuir</i> , 2014, 30, 4427-4433.	3.5	18
69	Poly(aryl ether-azines). <i>Macromolecules</i> , 1994, 27, 3426-3428.	4.8	17
70	Formation of Crystalline Cadmium Selenide Nanowires. <i>Chemistry of Materials</i> , 2011, 23, 3371-3376.	6.7	17
71	Spatially Mapping Charge Carrier Density and Defects in Organic Electronics Using Modulation-Amplified Reflectance Spectroscopy. <i>Advanced Materials</i> , 2014, 26, 4539-4545.	21.0	17
72	Macroscopically ordered hexagonal arrays by directed self-assembly of block copolymers with minimal topographic patterns. <i>Nanoscale</i> , 2017, 9, 14888-14896.	5.6	17

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73	Poly(9,9-Dihexylfluorene) Layers Grown via Surface-Directed Ni(0) Condensation Polymerization. <i>Langmuir</i> , 2009, 25, 9552-9556.	3.5	16
74	Opportunities with Fabric Composites as Unique Flexible Substrates. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 6640-6645.	8.0	16
75	Orthogonally Aligned Block Copolymer Line Patterns on Minimal Topographic Patterns. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 8324-8332.	8.0	15
76	Hole-transporting diketopyrrolopyrrole-thiophene polymers and their additive-free application for a perovskite-type solar cell with an efficiency of 16.3%. <i>Polymer Journal</i> , 2019, 51, 91-96.	2.7	15
77	Transmission electron microscopy of 3F/PMDA-polypropylene oxide triblock copolymer based nanofoams. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1997, 35, 1067-1076.	2.1	14
78	Organolithium-Activated Nickel (OLAN) Catalysis: A New Synthetic Route for Polyarylates. <i>Macromolecules</i> , 2008, 41, 8977-8979.	4.8	14
79	Vinyloxycyclophosphazenes. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 1989, 41, 311-316.	1.6	13
80	Contact mechanics of a flexible imprinter for photocured nanoimprint lithography. <i>Tribology Letters</i> , 2005, 19, 59-63.	2.6	13
81	Excited State Characterization of Carborane-Containing Poly(dihexyl fluorene)s. <i>Journal of Physical Chemistry A</i> , 2019, 123, 1701-1709.	2.5	13
82	Crosslinked polyimide foams derived from poly(imidepropylene oxide) copolymers. <i>Macromolecular Chemistry and Physics</i> , 1997, 198, 549-559.	2.2	12
83	Non-uniform composition profiles in thin film polymeric nanofoams. <i>Polymer</i> , 1999, 40, 2547-2553.	3.8	11
84	Two-sided comb poly(amic ester)-poly(propylene oxide) graft copolymers as porous polyimide precursors. <i>Journal of Polymer Science Part A</i> , 2005, 43, 2266-2275.	2.3	11
85	Cyclophosphazene-containing Polymers as Imprint Lithography Resists. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2007, 17, 377-385.	3.7	11
86	Formation of SiO ₂ Air-Gap Patterns Through scCO ₂ Infusion of NIL Patterned PHEMA. <i>Chemistry of Materials</i> , 2010, 22, 1445-1451.	6.7	11
87	An Age-Old Printing Process Goes Nano. <i>ACS Nano</i> , 2010, 4, 595-598.	14.6	11
88	Synthesis and Characterization of Poly(2-alkylbenzimidazole- <i>alt</i> -9,9-dihexylfluorene)s: A Dually Dopable Polymer System. <i>Macromolecules</i> , 2014, 47, 2915-2920.	4.8	11
89	Enhancing Adhesion of Elastomeric Composites through Facile Patterning of Surface Discontinuities. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 6845-6850.	8.0	11
90	Cellulose nanocrystal surface modification via grafting-from sonogashira coupling of poly(ethynylene-fluorene). <i>Cellulose</i> , 2018, 25, 5731-5738.	4.9	11

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91	Short Excited-State Lifetimes Enable Photo-Oxidatively Stable Rubrene Derivatives. <i>Journal of Physical Chemistry A</i> , 2019, 123, 7558-7566.	2.5	11
92	Silylcarborane Acrylate Nanoimprint Lithography Resists. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 1887-1892.	8.0	10
93	Surface Grafting of Functionalized Poly(thiophene)s Using Thiol-ene Click Chemistry for Thin Film Stabilization. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 30543-30551.	8.0	10
94	Direct Passivation of Hydride-Terminated Silicon (100) Surfaces by Free-Radically Tethered Polymer Brushes. <i>Langmuir</i> , 2009, 25, 9232-9239.	3.5	9
95	Functionally Decoupled Soft Lithography for Patterning Polymer Brushes. <i>Small</i> , 2011, 7, 2669-2674.	10.0	9
96	Facile Colloidal Lithography on Rough and Nonplanar Surfaces for Asymmetric Patterning. <i>Small</i> , 2013, 9, 3037-3042.	10.0	9
97	Synthesis of π -Bridged Dually-Dopable Conjugated Polymers from Benzimidazole and Fluorene: Separating Sterics from Electronics. <i>Macromolecules</i> , 2015, 48, 6970-6977.	4.8	9
98	Fabrication of sub-20 nm patterns using dopamine chemistry in self-aligned double patterning. <i>Nanoscale</i> , 2018, 10, 20779-20784.	5.6	9
99	Fabrication of patterned cellulose film via solvent-assisted soft nanoimprint lithography at a submicron scale. <i>Cellulose</i> , 2018, 25, 5185-5194.	4.9	9
100	Cyclic ureas as solvents for poly(aryl ether) synthesis. <i>Polymer Bulletin</i> , 1993, 30, 25-31.	3.3	8
101	Synthesis and properties of imide-aryl ether 1,2,4-triazole random copolymers. <i>Polymer</i> , 1993, 34, 843-848.	3.8	8
102	Formation of hierarchical silica nanochannels through nanoimprint lithography. <i>Journal of Materials Chemistry</i> , 2011, 21, 14213.	6.7	8
103	Fabrication of flexible oriented magnetic thin films with large in-plane uniaxial anisotropy by roll-to-roll nanoimprint lithography. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 407, 273-278.	2.3	8
104	Mechanical Properties and Moisture Transport Behavior of Acid-Sensitive Hydrogels. <i>ACS Applied Polymer Materials</i> , 2019, 1, 2846-2853.	4.4	8
105	Synthesis and Characterization of Main-Chain High-Temperature Nonlinear Optical-Active Polymers. Poly(aryl ether-oxazoles). <i>Macromolecules</i> , 1994, 27, 4851-4852.	4.8	7
106	Mold and Metallization: Nanocontact Molding for the Fabrication of Metal Structures. <i>Small</i> , 2007, 3, 1703-1706.	10.0	7
107	A one-pot strategy to improve end-capping efficacy in Stille poly-condensations. <i>Polymer Chemistry</i> , 2018, 9, 1132-1138.	3.9	7
108	Nanoimprint Lithography of Polymers. , 2012, , 251-274.		6

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109	Guided Assembly of Block Copolymers in Three-Dimensional Woodpile Scaffolds. ACS Applied Materials & Interfaces, 2018, 10, 42933-42940.	8.0	6
110	Hierarchically Structured Porous Cadmium Selenide Polycrystals Using Polystyrene Bilayer Templates. Langmuir, 2012, 28, 13149-13156.	3.5	5
111	Poly(aryl ether)s Containing Pendent Benzoxazole and Benzothiazole Units. Macromolecules, 1995, 28, 4340-4343.	4.8	4
112	Nanofabrication: past, present and future. Journal of Materials Chemistry, 2011, 21, 14095.	6.7	4
113	Fabrication of air gap dielectrics by nanoimprint lithography. Microelectronic Engineering, 2012, 98, 89-96.	2.4	3
114	Mixed substituent poly[(vinyloxy)cyclotriphosphazenes]. Journal of Polymer Science Part A, 2013, 51, 2288-2293.	2.3	3
115	Oxidized cellulose nanofibers modified with arginine. Cellulose, 2022, 29, 7603-7612.	4.9	3
116	Thiophene-based poly(arylene ether)s: 5. Imide-arylene ether statistical copolymers. Polymer, 1994, 35, 3782-3785.	3.8	2
117	Dithienobenzimidazole-containing conjugated donor-acceptor polymers: Synthesis and characterization. Journal of Polymer Science Part A, 2019, 57, 60-69.	2.3	2
118	Semiconducting Cellulose Nanocrystal-Polyfluorene Emissive Materials in Organic Light-Emitting Diodes. ACS Applied Polymer Materials, 2021, 3, 3595-3602.	4.4	2
119	Cover Picture: High-Resolution Soft Lithography: Enabling Materials for Nanotechnologies (Angew.) Tj ETQq1 1 0.784314 rgBT /Overlo	13.8	1
120	Perfluoropolyethers as novel materials for soft lithography. , 2005, , .		0
121	Blue-Emitting p-Carborane Linked Polyfluorene. Synfacts, 2009, 2009, 1099-1099.	0.0	0
122	Gate-Modulated Conductance of Extended Conjugation in Atomically Arrayed Molecular Assemblies. Journal of Physical Chemistry C, 2019, 123, 5736-5745.	3.1	0
123	Fibronectin Patterning of Viscous Polymer films by Microcontact Printing. Matters, 0, , .	1.0	0