Tricia Breen Carmichael

List of Publications by Year
in descending order

52 papers	3,340 citations	186209 28 h-index	189801 50 g-index
53 all docs	53 docs citations	53 times ranked	3772 citing authors

#	Article	IF	Citations
1	Forming Electrical Networks in Three Dimensions by Self-Assembly. Science, 2000, 289, 1170-1172.	6.0	464
2	High-Performance, Solution-Processed Organic Thin Film Transistors from a Novel Pentacene Precursor. Journal of the American Chemical Society, 2002, 124, 8812-8813.	6.6	446
3	Design and Self-Assembly of Open, Regular, 3D Mesostructures. Science, 1999, 284, 948-951.	6.0	282
4	Formation and reactivity of the early metal phosphides and phosphinidenes Cp*2Zr:PR, Cp*2Zr(PR)2, and Cp*2Zr(PR)3. Organometallics, 1993, 12, 3158-3167.	1.1	163
5	Phosphinidene Transfer Reactions of the Terminal Phosphinidene Complex Cp2Zr(:PC6H2-2,4,6-t-Bu3)(PMe3). Journal of the American Chemical Society, 1995, 117, 11914-11921.	6.6	163
6	Silver Nanowire/Optical Adhesive Coatings as Transparent Electrodes for Flexible Electronics. ACS Applied Materials & Interfaces, 2013, 5, 10165-10172.	4.0	142
7	Stretchable Lightâ€Emitting Electrochemical Cells Using an Elastomeric Emissive Material. Advanced Materials, 2012, 24, 2673-2678.	11.1	130
8	The 2021 flexible and printed electronics roadmap. Flexible and Printed Electronics, 2021, 6, 023001.	1.5	100
9	Patterned, Flexible, and Stretchable Silver Nanowire/Polymer Composite Films as Transparent Conductive Electrodes. ACS Applied Materials & Interfaces, 2019, 11, 31210-31219.	4.0	98
10	Oddâ€"Even Effects in Charge Transport across <i>n</i>-Alkanethiolate-Based SAMs. Journal of the American Chemical Society, 2014, 136, 16919-16925.	6.6	96
11	Patterning organicâ€"inorganic thin-film transistors using microcontact printed templates. Applied Physics Letters, 2001, 79, 3536-3538.	1.5	95
12	Patterning Indium Tin Oxide and Indium Zinc Oxide Using Microcontact Printing and Wet Etching. Langmuir, 2002, 18, 194-197.	1.6	89
13	Crystallization of Millimeter-Scale Objects with Use of Capillary Forces. Journal of the American Chemical Society, 1998, 120, 12670-12671.	6.6	76
14	Stretchable Ultrasheer Fabrics as Semitransparent Electrodes for Wearable Light-Emitting e-Textiles with Changeable Display Patterns. Matter, 2020, 2, 882-895.	5.0	68
15	A comparative analysis of capacitive-based flexible PDMS pressure sensors. Sensors and Actuators A: Physical, 2019, 285, 427-436.	2.0	64
16	Maskless photolithography: Embossed photoresist as its own optical element. Applied Physics Letters, 1998, 73, 2893-2895.	1.5	63
17	Metallacycle Transfer Routes to Main-Group Phosphacycles. Organometallics, 1997, 16, 365-369.	1.1	51
18	An Efficient Synthesis of Symmetrical Oligothiophenes:Â Synthesis and Transport Properties of a Soluble Sexithiophene Derivative. Chemistry of Materials, 2002, 14, 1742-1746.	3.2	50

#	Article	IF	Citations
19	Solution Deposition of Conformal Gold Coatings on Knitted Fabric for Eâ€Textiles and Electroluminescent Clothing. Advanced Materials Technologies, 2018, 3, 1700292.	3.0	48
20	Substitution or nucleophilic attack by phosphines on tetrachlorobis(tetrahydrofuran)zirconium. Inorganic Chemistry, 1992, 31, 4019-4022.	1.9	47
21	25 Years of Lightâ€Emitting Electrochemical Cells: A Flexible and Stretchable Perspective. Advanced Materials, 2021, 33, e2006863.	11.1	44
22	Wearable E-Textiles Using a Textile-Centric Design Approach. Accounts of Chemical Research, 2021, 54, 4051-4064.	7.6	43
23	Synthesis and Reactivity of Phosphametallacyclobutenes:Â Sterically Induced [4 + 2] Retrocycloadditions. Journal of the American Chemical Society, 1996, 118, 4204-4205.	6.6	37
24	A Self-Assembled, Low-Cost, Microstructured Layer for Extremely Stretchable Gold Films. ACS Applied Materials & Interfaces, 2015, 7, 20745-20752.	4.0	36
25	Fabrication of Elastomeric Wires by Selective Electroless Metallization of Poly(dimethylsiloxane). Advanced Materials, 2008, 20, 59-64.	11.1	33
26	Conducting materials as building blocks for electronic textiles. MRS Bulletin, 2021, 46, 491-501.	1.7	33
27	Early Metal Mediated P-P Bond Formation in Cp2M((PR)2) and Cp2M((PR)3) Complexes. Inorganic Chemistry, 1994, 33, 865-870.	1.9	31
28	Reactivity Studies of Methylzirconocene Phosphide Complexes. Organometallics, 1996, 15, 4509-4514.	1.1	30
29	Reinventing Butyl Rubber for Stretchable Electronics. Advanced Functional Materials, 2016, 26, 5222-5229.	7.8	30
30	Selective Electroless Metal Deposition Using Microcontact Printing of Phosphineâ^'Phosphonic Acid Inks. Langmuir, 2004, 20, 5593-5598.	1.6	28
31	Propargyl Chlorides as Sources for Cobalt Stabilized .gamma.-Carbonyl Cations. Journal of Organic Chemistry, 1995, 60, 7496-7502.	1.7	27
32	Selectively Metallized Polymeric Substrates by Microcontact Printing an Aluminum(III) Porphyrin Complex. Journal of the American Chemical Society, 2010, 132, 765-772.	6.6	25
33	Synthesis and Reactivity of Phosphametallacycles:â€‰ Sterically Induced Epimerizations and Retrocycloadditions. Organometallics, 1996, 15, 5729-5737.	1.1	22
34	Ultrasmooth Gold Surfaces Prepared by Chemical Mechanical Polishing for Applications in Nanoscience. Langmuir, 2014, 30, 14171-14178.	1.6	22
35	Heterogeneous Surface Orientation of Solution-Deposited Gold Films Enables Retention of Conductivity with High Strainâ€"A New Strategy for Stretchable Electronics. Chemistry of Materials, 2019, 31, 1920-1927.	3.2	20
36	Velour Fabric as an Island-Bridge Architectural Design for Stretchable Textile-Based Lithium-ion Battery Electrodes. ACS Applied Materials & Interfaces, 2020, 12, 51679-51687.	4.0	18

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37	Membrane-Interface-Elastomer Structures for Stretchable Electronics. CheM, 2018, 4, 1673-1684.	5.8	17
38	Stretchable metal films. Flexible and Printed Electronics, 2018, 3, 043001.	1.5	16
39	Transparent, stretchable, and conductive SWNT films using supramolecular functionalization and layer-by-layer self-assembly. RSC Advances, 2016, 6, 29254-29263.	1.7	15
40	Developing the Surface Chemistry of Transparent Butyl Rubber for Impermeable Stretchable Electronics. Langmuir, 2016, 32, 10206-10212.	1.6	14
41	New Dialkyldithiophosphinic Acid Self-Assembled Monolayers (SAMs): Influence of Gold Substrate Morphology on Adsorbate Binding and SAM Structure. Langmuir, 2011, 27, 10019-10026.	1.6	13
42	Templated Self-Assembly of Glass Microspheres into Ordered Two-Dimensional Arrays under Dry Conditions. Langmuir, 2010, 26, 5286-5290.	1.6	11
43	Ready-to-wear strain sensing gloves for human motion sensing. IScience, 2021, 24, 102525.	1.9	10
44	Influence of Alkyl Chain Length on the Structure of Dialkyldithiophosphinic Acid Self-Assembled Monolayers on Gold. Langmuir, 2012, 28, 13253-13260.	1.6	8
45	Formation of Self-Assembled Monolayers with Homogeneously Mixed, Loosely Packed Alkyl Groups Using Unsymmetrical Dialkyldithiophosphinic Acids. Langmuir, 2012, 28, 17701-17708.	1.6	7
46	The Unusual Self-Organization of Dialkyldithiophosphinic Acid Self-Assembled Monolayers on Ultrasmooth Gold. Journal of the American Chemical Society, 2014, 136, 4212-4222.	6.6	6
47	New Dihexadecyldithiophosphate SAMs on Gold Provide Insight into the Unusual Dependence of Adsorbate Chelation on Substrate Morphology in SAMs of Dialkyldithiophosphinic Acids. Journal of the American Chemical Society, 2013, 135, 15784-15793.	6.6	4
48	From Chlorinated Solvents to Branched Polyethylene: Solventâ€Induced Phase Separation for the Greener Processing of Semiconducting Polymers. Advanced Electronic Materials, 2022, 8, 2100928.	2.6	3
49	Protocol for fabricating electroless nickel immersion gold strain sensors on nitrile butadiene rubber gloves for wearable electronics. STAR Protocols, 2021, 2, 100832.	0.5	1
50	Elastomers: Reinventing Butyl Rubber for Stretchable Electronics (Adv. Funct. Mater. 29/2016). Advanced Functional Materials, 2016, 26, 5379-5379.	7.8	0
51	Creating Stretchable, Flexible Electronics With MINE Structures. , 2018, , .		0
52	Flexible and printed electronics: a transition in leadershipâ€"reflecting on our successes and looking forward to the future. Flexible and Printed Electronics, 2022, 7, 010401.	1.5	0