

# Tricia Breen Carmichael

## List of Publications by Citations

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51  
papers

2,706  
citations

26  
h-index

52  
g-index

53  
ext. papers

2,986  
ext. citations

10  
avg, IF

5.02  
L-index

#	Paper	IF	Citations
51	Forming electrical networks in three dimensions by self-assembly. <i>Science</i> , <b>2000</b> , 289, 1170-2	33.3	413
50	High-performance, solution-processed organic thin film transistors from a novel pentacene precursor. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 8812-3	16.4	409
49	Design and self-assembly of open, regular, 3D mesostructures. <i>Science</i> , <b>1999</b> , 284, 948-51	33.3	250
48	Phosphinidene Transfer Reactions of the Terminal Phosphinidene Complex Cp <sub>2</sub> Zr(PC <sub>6</sub> H <sub>2</sub> -2,4,6-t-Bu <sub>3</sub> )(PMe <sub>3</sub> ). <i>Journal of the American Chemical Society</i> , <b>1995</b> , 117, 11914-11921	16.4	148
47	Formation and reactivity of the early metal phosphides and phosphinidenes Cp* <sub>2</sub> Zr:PR, Cp* <sub>2</sub> Zr(PR) <sub>2</sub> , and Cp* <sub>2</sub> Zr(PR) <sub>3</sub> . <i>Organometallics</i> , <b>1993</b> , 12, 3158-3167	3.8	148
46	Silver nanowire/optical adhesive coatings as transparent electrodes for flexible electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 10165-72	9.5	127
45	Stretchable light-emitting electrochemical cells using an elastomeric emissive material. <i>Advanced Materials</i> , <b>2012</b> , 24, 2673-8	24	115
44	Patterning organic/inorganic thin-film transistors using microcontact printed templates. <i>Applied Physics Letters</i> , <b>2001</b> , 79, 3536-3538	3.4	83
43	Odd-even effects in charge transport across n-alkanethiolate-based SAMs. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 16919-25	16.4	80
42	Patterning Indium Tin Oxide and Indium Zinc Oxide Using Microcontact Printing and Wet Etching. <i>Langmuir</i> , <b>2002</b> , 18, 194-197	4	79
41	Crystallization of Millimeter-Scale Objects with Use of Capillary Forces. <i>Journal of the American Chemical Society</i> , <b>1998</b> , 120, 12670-12671	16.4	65
40	Maskless photolithography: Embossed photoresist as its own optical element. <i>Applied Physics Letters</i> , <b>1998</b> , 73, 2893-2895	3.4	49
39	Patterned, Flexible, and Stretchable Silver Nanowire/Polymer Composite Films as Transparent Conductive Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 31210-31219	9.5	48
38	Metallacycle Transfer Routes to Main-Group Phosphacycles. <i>Organometallics</i> , <b>1997</b> , 16, 365-369	3.8	46
37	An Efficient Synthesis of Symmetrical Oligothiophenes: Synthesis and Transport Properties of a Soluble Sexithiophene Derivative. <i>Chemistry of Materials</i> , <b>2002</b> , 14, 1742-1746	9.6	45
36	Substitution or nucleophilic attack by phosphines on tetrachlorobis(tetrahydrofuran)zirconium. <i>Inorganic Chemistry</i> , <b>1992</b> , 31, 4019-4022	5.1	40
35	Solution Deposition of Conformal Gold Coatings on Knitted Fabric for E-Textiles and Electroluminescent Clothing. <i>Advanced Materials Technologies</i> , <b>2018</b> , 3, 1700292	6.8	35

34	A comparative analysis of capacitive-based flexible PDMS pressure sensors. <i>Sensors and Actuators A: Physical</i> , <b>2019</b> , 285, 427-436	3.9	35
33	Synthesis and Reactivity of Phosphametallacyclobutenes: Sterically Induced [4 + 2] Retrocycloadditions. <i>Journal of the American Chemical Society</i> , <b>1996</b> , 118, 4204-4205	16.4	33
32	The 2021 flexible and printed electronics roadmap. <i>Flexible and Printed Electronics</i> , <b>2022</b> , 6, 023001	3.1	33
31	Fabrication of Elastomeric Wires by Selective Electroless Metallization of Poly(dimethylsiloxane). <i>Advanced Materials</i> , <b>2008</b> , 20, 59-64	24	32
30	A Self-Assembled, Low-Cost, Microstructured Layer for Extremely Stretchable Gold Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 20745-52	9.5	31
29	Stretchable Ultrasheer Fabrics as Semitransparent Electrodes for Wearable Light-Emitting e-Textiles with Changeable Display Patterns. <i>Matter</i> , <b>2020</b> , 2, 882-895	12.7	29
28	Reactivity Studies of Methylzirconocene Phosphide Complexes. <i>Organometallics</i> , <b>1996</b> , 15, 4509-4514	3.8	29
27	Early Metal Mediated P-P Bond Formation in Cp <sub>2</sub> M((PR) <sub>2</sub> ) and Cp <sub>2</sub> M((PR) <sub>3</sub> ) Complexes. <i>Inorganic Chemistry</i> , <b>1994</b> , 33, 865-870	5.1	29
26	Selective electroless metal deposition using microcontact printing of phosphine-phosphonic acid inks. <i>Langmuir</i> , <b>2004</b> , 20, 5593-8	4	26
25	Selectively metallized polymeric substrates by microcontact printing an aluminum(III) porphyrin complex. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 765-72	16.4	24
24	Synthesis and Reactivity of Phosphametallacycles: Sterically Induced Epimerizations and Retrocycloadditions. <i>Organometallics</i> , <b>1996</b> , 15, 5729-5737	3.8	22
23	Ultrasmooth gold surfaces prepared by chemical mechanical polishing for applications in nanoscience. <i>Langmuir</i> , <b>2014</b> , 30, 14171-8	4	20
22	Propargyl Chlorides as Sources for Cobalt Stabilized .gamma.-Carbonyl Cations. <i>Journal of Organic Chemistry</i> , <b>1995</b> , 60, 7496-7502	4.2	20
21	Reinventing Butyl Rubber for Stretchable Electronics. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5222-5229	5.6	20
20	25 Years of Light-Emitting Electrochemical Cells: A Flexible and Stretchable Perspective. <i>Advanced Materials</i> , <b>2021</b> , 33, e2006863	24	18
19	Transparent, stretchable, and conductive SWNT films using supramolecular functionalization and layer-by-layer self-assembly. <i>RSC Advances</i> , <b>2016</b> , 6, 29254-29263	3.7	14
18	New dialkyldithiophosphinic acid self-assembled monolayers (SAMs): influence of gold substrate morphology on adsorbate binding and SAM structure. <i>Langmuir</i> , <b>2011</b> , 27, 10019-26	4	13
17	Heterogeneous Surface Orientation of Solution-Deposited Gold Films Enables Retention of Conductivity with High Strain: A New Strategy for Stretchable Electronics. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 1920-1927	9.6	12

16	Membrane-Interface-Elastomer Structures for Stretchable Electronics. <i>Chem</i> , <b>2018</b> , 4, 1673-1684	16.2	11
15	Developing the Surface Chemistry of Transparent Butyl Rubber for Impermeable Stretchable Electronics. <i>Langmuir</i> , <b>2016</b> , 32, 10206-10212	4	10
14	Stretchable metal films. <i>Flexible and Printed Electronics</i> , <b>2018</b> , 3, 043001	3.1	10
13	Velour Fabric as an Island-Bridge Architectural Design for Stretchable Textile-Based Lithium-ion Battery Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 51679-51687	9.5	8
12	Templated self-assembly of glass microspheres into ordered two-dimensional arrays under dry conditions. <i>Langmuir</i> , <b>2010</b> , 26, 5286-90	4	8
11	Formation of self-assembled monolayers with homogeneously mixed, loosely packed alkyl groups using unsymmetrical dialkyldithiophosphinic acids. <i>Langmuir</i> , <b>2012</b> , 28, 17701-8	4	7
10	Wearable E-Textiles Using a Textile-Centric Design Approach. <i>Accounts of Chemical Research</i> , <b>2021</b> , 54, 4051-4064	24.3	7
9	Conducting materials as building blocks for electronic textiles. <i>MRS Bulletin</i> , <b>2021</b> , 46, 491-501	3.2	6
8	The unusual self-organization of dialkyldithiophosphinic acid self-assembled monolayers on ultrasmooth gold. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 4212-22	16.4	5
7	Influence of alkyl chain length on the structure of dialkyldithiophosphinic acid self-assembled monolayers on gold. <i>Langmuir</i> , <b>2012</b> , 28, 13253-60	4	5
6	New dihexadecyldithiophosphate SAMs on gold provide insight into the unusual dependence of adsorbate chelation on substrate morphology in SAMs of dialkyldithiophosphinic acids. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 15784-93	16.4	4
5	Ready-to-wear strain sensing gloves for human motion sensing. <i>Science</i> , <b>2021</b> , 24, 102525	6.1	3
4	From Chlorinated Solvents to Branched Polyethylene: Solvent-Induced Phase Separation for the Greener Processing of Semiconducting Polymers. <i>Advanced Electronic Materials</i> , 2100928	6.4	1
3	Protocol for fabricating electroless nickel immersion gold strain sensors on nitrile butadiene rubber gloves for wearable electronics. <i>STAR Protocols</i> , <b>2021</b> , 2, 100832	1.4	0
2	Elastomers: Reinventing Butyl Rubber for Stretchable Electronics (Adv. Funct. Mater. 29/2016). <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5379-5379	15.6	
1	Flexible and printed electronics: a transition in leadership reflecting on our successes and looking forward to the future. <i>Flexible and Printed Electronics</i> , <b>2022</b> , 7, 010401	3.1	