

Christopher B Gorman

List of Publications by Year in descending order

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citing authors

#	ARTICLE	IF	CITATIONS
1	The Genesis of Molecular Electronics. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 4378-4400.	13.8	786
2	A Unified Description of Linear and Nonlinear Polarization in Organic Polymethine Dyes. <i>Science</i> , 1994, 265, 632-635.	12.6	615
3	Scanning Probe Lithography Using Self-Assembled Monolayers. <i>Chemical Reviews</i> , 2003, 103, 4367-4418.	47.7	421
4	Relation Between Bond-Length Alternation and Second Electronic Hyperpolarizability of Conjugated Organic Molecules. <i>Science</i> , 1993, 261, 186-189.	12.6	391
5	Self-Assembled Monolayers of Long-Chain Hydroxamic Acids on the Native Oxide of Metals. <i>Langmuir</i> , 1995, 11, 813-824.	3.5	325
6	An investigation of the interrelationships between linear and nonlinear polarizabilities and bond-length alternation in conjugated organic molecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993, 90, 11297-11301.	7.1	238
7	Metallo dendrimers: Structural Diversity and Functional Behavior. <i>Advanced Materials</i> , 1998, 10, 295-309.	21.0	227
8	Structure-Property Relationships in Dendritic Encapsulation. <i>Accounts of Chemical Research</i> , 2001, 34, 60-71.	15.6	222
9	Direct observation of reduced bond-length alternation in donor/acceptor polyenes. <i>Journal of the American Chemical Society</i> , 1993, 115, 2524-2526.	13.7	199
10	Stronger acceptors can diminish nonlinear optical response in simple donor-acceptor polyenes. <i>Journal of the American Chemical Society</i> , 1993, 115, 3006-3007.	13.7	187
11	Thin Films of n-Si/Poly-(CH ₃) ₃ Si-Cyclooctatetraene: Conducting-Polymer Solar Cells and Layered Structures. <i>Science</i> , 1990, 249, 1146-1149.	12.6	175
12	Molecular Structure-Property Relationships for Electron-Transfer Rate Attenuation in Redox-Active Core Dendrimers. <i>Journal of the American Chemical Society</i> , 1999, 121, 9958-9966.	13.7	162
13	Soluble, chiral polyacetylenes: syntheses and investigation of their solution conformation. <i>Journal of the American Chemical Society</i> , 1991, 113, 1704-1712.	13.7	158
14	Encapsulated Electroactive Molecules Based upon an Inorganic Cluster Surrounded by Dendron Ligands. <i>Journal of the American Chemical Society</i> , 1997, 119, 1141-1142.	13.7	134
15	Active Control of Wetting Using Applied Electrical Potentials and Self-Assembled Monolayers. <i>Langmuir</i> , 1995, 11, 16-18.	3.5	131
16	Effects of Temperature and pH on the Degradation of Poly(lactic acid) Brushes. <i>Macromolecules</i> , 2011, 44, 4777-4782.	4.8	129
17	Control of the Shape of Liquid Lenses on a Modified Gold Surface Using an Applied Electrical Potential across a Self-Assembled Monolayer. <i>Langmuir</i> , 1995, 11, 2242-2246.	3.5	124
18	Soluble, highly conjugated derivatives of polyacetylene from the ring-opening metathesis polymerization of monosubstituted cyclooctatetraenes: synthesis and the relationship between polymer structure and physical properties. <i>Journal of the American Chemical Society</i> , 1993, 115, 1397-1409.	13.7	119

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19	Fabrication of Patterned, Electrically Conducting Polypyrrole Using a Self-Assembled Monolayer: A Route to All-Organic Circuits. <i>Chemistry of Materials</i> , 1995, 7, 526-529.	6.7	119
20	Patterning Mesoscale Gradient Structures with Self-Assembled Monolayers and Scanning Tunneling Microscopy Based Replacement Lithography. <i>Advanced Materials</i> , 2002, 14, 154-157.	21.0	112
21	Negative Differential Resistance in Patterned Electroactive Self-Assembled Monolayers. <i>Langmuir</i> , 2001, 17, 6923-6930.	3.5	111
22	Redox-gated electron transport in electrically wired ferrocene molecules. <i>Chemical Physics</i> , 2006, 326, 138-143.	1.9	109
23	Liquid Metal Nanoparticles as Initiators for Radical Polymerization of Vinyl Monomers. <i>ACS Macro Letters</i> , 2019, 8, 1522-1527.	4.8	109
24	Infrared Detection of a Phenylboronic Acid Terminated Alkane Thiol Monolayer on Gold Surfaces. <i>Langmuir</i> , 2004, 20, 5512-5520.	3.5	102
25	Attenuating Negative Differential Resistance in an Electroactive Self-Assembled Monolayer-Based Junction. <i>Journal of the American Chemical Society</i> , 2004, 126, 295-300.	13.7	99
26	Effect of Substrate Geometry on Polymer Molecular Weight and Polydispersity during Surface-Initiated Polymerization. <i>Macromolecules</i> , 2008, 41, 4856-4865.	4.8	98
27	Self-Assembled Monolayers of Terminal Alkynes on Gold. <i>Journal of the American Chemical Society</i> , 2007, 129, 4876-4877.	13.7	96
28	Detection of DNA Point Mutation by Atom Transfer Radical Polymerization. <i>Analytical Chemistry</i> , 2005, 77, 4698-4705.	6.5	93
29	Effect of Molecular Polarization on Bond-Length Alternation, Linear Polarizability, First and Second Hyperpolarizability in Donor-Acceptor Polyenes as a Function of Chain Length. <i>Chemistry of Materials</i> , 1995, 7, 215-220.	6.7	84
30	Use of a Paramagnetic Core to Affect Longitudinal Nuclear Relaxation in Dendrimers A Tool for Probing Dendrimer Conformation. <i>Macromolecules</i> , 1998, 31, 815-822.	4.8	81
31	Tip-Induced Structural Rearrangements of Alkanethiolate Self-Assembled Monolayers on Gold. <i>Journal of Physical Chemistry B</i> , 1997, 101, 5263-5276.	2.6	80
32	Chemically Well-Defined Lithography Using Self-Assembled Monolayers and Scanning Tunneling Microscopy in Nonpolar Organothiol Solutions. <i>Langmuir</i> , 2000, 16, 6312-6316.	3.5	78
33	Effects of Site Encapsulation on Electrochemical Behavior of Redox-Active Core Dendrimers. <i>Advanced Functional Materials</i> , 2002, 12, 17.	14.9	74
34	Stochastic Variation in Conductance on the Nanometer Scale: A General Phenomenon. <i>Nano Letters</i> , 2003, 3, 1617-1620.	9.1	73
35	Nanoparticle Layers Assembled through DNA Hybridization: Characterization and Optimization. <i>Langmuir</i> , 2002, 18, 1825-1830.	3.5	71
36	Poly(trimethylsilylcyclooctatetraene): a soluble conjugated polyacetylene via olefin metathesis. <i>Journal of the American Chemical Society</i> , 1989, 111, 7621-7622.	13.7	68

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37	Establishing the Molecular Basis for Molecular Electronics. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 5120-5123.	13.8	68
38	Synthetic Approaches to an Isostructural Series of Redox-Active, Metal Tris(bipyridine) Core Dendrimers. <i>Journal of Organic Chemistry</i> , 2003, 68, 9019-9025.	3.2	60
39	Structural Effects on Encapsulation As Probed in Redox-Active Core Dendrimer Isomers. <i>Journal of the American Chemical Society</i> , 2003, 125, 8250-8254.	13.7	60
40	Reversible Addition~Fragmentation Chain Transfer Polymerization in DNA Biosensing. <i>Analytical Chemistry</i> , 2008, 80, 3633-3639.	6.5	59
41	Encapsulated electroactive molecules. <i>Advanced Materials</i> , 1997, 9, 1117-1119.	21.0	54
42	Semipermeable, Chemisorbed Adlayers of Focally-Substituted Organothiols on Gold. <i>Langmuir</i> , 1998, 14, 3312-3319.	3.5	52
43	Effect of repeat unit flexibility on dendrimer conformation as studied by atomistic molecular dynamics simulations. <i>Polymer</i> , 2000, 41, 675-683.	3.8	52
44	Surface-Initiated Polymerization by Means of Novel, Stable, Non-Ester-Based Radical Initiator. <i>Macromolecules</i> , 2012, 45, 3802-3815.	4.8	52
45	Iron~Sulfur Core Dendrimers Display Dramatically Different Electrochemical Behavior in Films Compared to Solution. <i>Journal of the American Chemical Society</i> , 2000, 122, 9342-9343.	13.7	43
46	Fast Directed Motion of ~Droplets. <i>Langmuir</i> , 2004, 20, 9893-9896.	3.5	41
47	Voltammetric characterization of soluble polyacetylene derivatives obtained from the ring-opening metathesis polymerization (ROMP) of substituted cyclooctatetraenes. <i>Journal of the American Chemical Society</i> , 1993, 115, 4705-4713.	13.7	39
48	Use of a Patterned Self-Assembled Monolayer To Control the Formation of a Liquid Resist Pattern on a Gold Surface. <i>Chemistry of Materials</i> , 1995, 7, 252-254.	6.7	39
49	Time-Resolved Fluorescence Investigation of Energy Transfer in Compact Phenylacetylene Dendrimers. <i>Journal of Physical Chemistry B</i> , 2004, 108, 8543-8549.	2.6	38
50	Supramolecular Assembly on Surfaces: Manipulating Conductance in Noncovalently Modified Mesoscale Structures. <i>Journal of the American Chemical Society</i> , 2002, 124, 9036-9037.	13.7	37
51	Alkanethiol Reductive Desorption from Self-Assembled Monolayers on Gold, Platinum, and Palladium Substrates. <i>Journal of Physical Chemistry C</i> , 2007, 111, 12804-12810.	3.1	37
52	Aminoisoquinolines as colorimetric Hg ²⁺ sensors: the importance of molecular structure and sacrificial base. <i>Tetrahedron</i> , 2009, 65, 4293-4297.	1.9	35
53	The Influence of Headgroup on the Structure of Self-Assembled Monolayers As Viewed by Scanning Tunneling Microscopy. <i>Langmuir</i> , 2001, 17, 5324-5328.	3.5	34
54	A Redox Fuel Cell That Operates with Methane as Fuel at 120°C. <i>Science</i> , 1994, 265, 1418-1420.	12.6	33

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55	Hybrid organic-inorganic, hexa-arm dendrimers based on an Mo ₆ Cl ₈ core. <i>Chemical Communications</i> , 1999, , 877-878.	4.1	29
56	Amidation of Polyesters Is Slow in Nonaqueous Solvents: Efficient Amidation of Poly(ethylene) Terephthalate in Organic Solvents. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 35641-35649.	8.0	27
57	Substituted polyacetylenes through the ring-opening metathesis polymerization (ROMP) of substituted cyclooctatetraenes: A route into soluble polyacetylene. <i>Synthetic Metals</i> , 1991, 41, 1033-1038.	3.9	26
58	Efficient synthesis of halo indanones via chlorosulfonic acid mediated Friedel-Crafts cyclization of aryl propionic acids and their use in alkylation reactions. <i>Tetrahedron</i> , 2007, 63, 389-395.	1.9	25
59	Lanthanum carbonate nanofibers for phosphorus removal from water. <i>Journal of Materials Science</i> , 2020, 55, 5008-5020.	3.7	25
60	Future directions in solid state chemistry: report of the NSF-sponsored workshop. <i>Progress in Solid State Chemistry</i> , 2002, 30, 1-101.	7.2	24
61	Dendritic encapsulation-roles of cores and branches. <i>Tetrahedron</i> , 2003, 59, 3853-3861.	1.9	23
62	Conduction mechanisms and stability of single molecule nanoparticle/molecule/nanoparticle junctions. <i>Nanotechnology</i> , 2007, 18, 035203.	2.6	23
63	Enhanced Conduction through Isocyanide Terminal Groups in Alkane and Biphenylene Molecules Measured in Molecule/Nanoparticle/Molecule Junctions. <i>Journal of Physical Chemistry C</i> , 2007, 111, 8080-8085.	3.1	23
64	Synthesis of a Series of Focally-Substituted Organothiol Dendrons. <i>Journal of Organic Chemistry</i> , 1996, 61, 9229-9235.	3.2	22
65	Synthesis, structure, and function of internally functionalized dendrimers. <i>Journal of Polymer Science</i> , 2021, 59, 10-28.	3.8	22
66	A Scanning Tunneling Microscopy Study of the Interaction of H ₂ S with a Au(111) Surface: Characterization of Corrosion and Monolayer Structures. <i>Langmuir</i> , 1997, 13, 4850-4854.	3.5	21
67	Preparation of Poly(cyanoacetylene) Using Late-Transition-Metal Catalysts. <i>Macromolecules</i> , 1999, 32, 4157-4165.	4.8	20
68	Dendritic encapsulation as probed in redox active core dendrimers. <i>Comptes Rendus Chimie</i> , 2003, 6, 911-918.	0.5	20
69	Scanning Tunneling Microscopy-Based Replacement Lithography on Self-Assembled Monolayers: Comparison of Gold, Palladium, and Platinum Substrates. <i>Langmuir</i> , 2007, 23, 3103-3105.	3.5	16
70	Dendritically Encapsulated, Water-Soluble Fe ₄ S ₄ : Synthesis and Electrochemical Properties. <i>Inorganic Chemistry</i> , 2010, 49, 5072-5078.	4.0	16
71	Attenuating Electron-Transfer Rates via Dendrimer Encapsulation: The Case of Metal Tris(bipyridine) Core Dendrimers. <i>Langmuir</i> , 2006, 22, 10506-10509.	3.5	15
72	One generation at a time. <i>Nature</i> , 2002, 415, 487-488.	27.8	14

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73	Effect of Structure on the Reduction Potentials of Films of Constitutional Isomers of Iron ²⁺ Sulfur Cluster Core Dendrimers. <i>Langmuir</i> , 2004, 20, 8792-8795.	3.5	14
74	Scanning Tunneling Microscope-Based Replacement Lithography on Self-Assembled Monolayers. Investigation of the Relationship between Monolayer Structure and Replacement Bias. <i>Journal of Physical Chemistry B</i> , 2004, 108, 8581-8583.	2.6	12
75	Comparison of the growth and degradation of poly(glycolic acid) and poly(ϵ -caprolactone) brushes. <i>Journal of Polymer Science Part A</i> , 2013, 51, 4643-4649.	2.3	12
76	An effective, orthogonal deprotection strategy for differentially functionalized, linear and Y-shaped oligo phenylene ethynylenes. <i>Tetrahedron</i> , 2007, 63, 7120-7132.	1.9	11
77	Highly conjugated, substituted polyacetylenes via the ring-opening metathesis polymerization of substituted cyclooctatetraenes. <i>Angewandte Chemie</i> , 1989, 101, 1603-1606.	2.0	10
78	Platinum-Catalyzed Oxidations of Organic Compounds by Ferric Sulfate: Use of a Redox Fuel Cell to Mediate Complete Oxidation of Ethylene Glycol by Dioxygen at 80 $^{\circ}$ C. <i>Journal of Catalysis</i> , 1996, 158, 92-96.	6.2	10
79	Nanoencapsulation and Stabilization of Single-Molecule/Particle Electronic Nanoassemblies Using Low-Temperature Atomic Layer Deposition. <i>Journal of Physical Chemistry C</i> , 2008, 112, 20510-20517.	3.1	9
80	Chemical amplification for in-gel DNA detection. <i>Analytical Methods</i> , 2011, 3, 2463.	2.7	9
81	Standing Up versus Looping Over: Controlling the Geometry of Self-Assembled Monolayers of ω -Dynes on Gold. <i>Langmuir</i> , 2011, 27, 6069-6075.	3.5	9
82	Real-time conductivity analysis through single-molecule electrical junctions. <i>Nanotechnology</i> , 2007, 18, 424001.	2.6	8
83	Terminal Alkynes as an Ink or Background SAM in Replacement Lithography: Adventitious versus Directed Replacement. <i>Langmuir</i> , 2010, 26, 15027-15034.	3.5	8
84	Cascade Cyclization To Produce a Series of Fused, Aromatic Molecules. <i>Organic Letters</i> , 2010, 12, 2146-2148.	4.6	7
85	Resisting protein adsorption on biodegradable polyester brushes. <i>Acta Biomaterialia</i> , 2014, 10, 3497-3504.	8.3	7
86	Highly Conjugated, Substituted Polyacetylenes via the Ring-Opening Metathesis Polymerization of Substituted Cyclooctatetraenes. <i>Angewandte Chemie International Edition in English</i> , 1989, 28, 1571-1574.	4.4	6
87	Ordered Adlayers of a Nonplanar Molecule on a Surface: π Misfit Monolayers and Intercalated Bilayers as the Result of a Dialkyl Amino Group. <i>Langmuir</i> , 1998, 14, 3052-3061.	3.5	6
88	Bifunctional, Conjugated Oligomers for Orthogonal Self-Assembly: Selectivity Varies from Planar Substrates to Nanoparticles. <i>Journal of the American Chemical Society</i> , 2004, 126, 16330-16331.	13.7	6
89	Effect of dendrimer generation on electron self-exchange kinetics between metal tris(bipyridine) core dendrimers. <i>Chemical Communications</i> , 2007, , 3195.	4.1	6
90	DendriPeps: Expanding Dendrimer Functionality by Hybridizing Poly(amidoamine) (PAMAM) Scaffolds with Peptide Segments. <i>Macromolecular Rapid Communications</i> , 2019, 40, 1900325.	3.9	6

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91	<title>Soluble polyacetylenes derived from the ring-opening metathesis polymerization of substituted cyclooctatetraenes: electrochemical characterization and Schottky barrier devices</title>. , 1991, , .		5
92	Poly(lactic acid) brushes grow longer at lower temperatures. Journal of Polymer Science Part A, 2010, 48, 3362-3367.	2.3	5
93	Effect of the Counterion on the Rate of Electron Transfer in Dendrimer Films. Langmuir, 2004, 20, 3501-3503.	3.5	4
94	Synthesis of 5,12-Diazapentacenes and Their Properties. Journal of Organic Chemistry, 2019, 84, 15079-15086.	3.2	4
95	Experimental demonstration of the relationship between the second- and third-order polarizabilities of conjugated donor-acceptor molecules. , 1994, , .		3
96	Overcoming challenges in the palladium-catalyzed synthesis of electron deficient ortho-substituted aryl acetonitriles. Organic and Biomolecular Chemistry, 2011, 9, 2661.	2.8	3
97	Using Probe Lithography and Self-Assembled Monolayers To Investigate Potential Molecular Electronics Systems. ACS Symposium Series, 2003, , 10-15.	0.5	2
98	Exploring the physicochemical and morphological properties of peptide- ϵ -hybridized dendrimers (<sc>DendriPeps</sc>) and their aggregates. Journal of Polymer Science, 2020, 58, 2234-2247.	3.8	2
99	Highly conjugated, substituted polyacetylenes via the ring-opening metathesis polymerization of substituted cyclooctatetraenes. Advanced Materials, 1989, 1, 389-392.	21.0	1
100	Control of electron transport using redox-active core dendrimers. Macromolecular Symposia, 2000, 156, 61-68.	0.7	1
101	Synthetic Approaches to an Isostructural Series of Redox-Active, Metal Tris(bipyridine) Core Dendrimers.. ChemInform, 2004, 35, no.	0.0	1
102	Dynamic Surfaces- ϵ Degradable Polyester Networks that Resist Protein Adsorption. Langmuir, 2021, 37, 8978-8988.	3.5	1
103	Amphiphilic phospholipid- ϵ iodinated polymer conjugates for bioimaging. Biomaterials Science, 2021, 9, 5045-5056.	5.4	1
104	Third-order polarizabilities of symmetric and nonsymmetric polyene and cyanine-like organic molecules. , 1993, , .		1
105	The Application of Ring-Opening Metathesis Polymerization to the Synthesis of Substituted Polyacetylenes. , 1990, , 537-541.		1
106	Degradable Anti-Biofouling Polyester Coatings with Controllable Lifetimes. Langmuir, 2022, 38, 1488-1496.	3.5	1
107	Ordering of a Functional Molecules on a Flat Surface as Evidenced by Scanning Probe Microscopies: The Case of a Di-Alkyl Amino Group. Microscopy and Microanalysis, 1998, 4, 304-305.	0.4	0
108	The Genesis of Molecular Electronics. ChemInform, 2003, 34, no.	0.0	0

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109	Dendritic Encapsulation-Roles of Cores and Branches.. ChemInform, 2003, 34, no.	0.0	0
110	Scanning Probe Lithography Using Self-Assembled Monolayers. ChemInform, 2004, 35, no.	0.0	0
111	Establishing the Molecular Basis for Molecular Electronics. ChemInform, 2004, 35, no.	0.0	0
112	Hierarchical assembly for molecular electronics. , 2005, 6003, 62.		0
113	Encapsulation Effects on Homogeneous Electron Self-Exchange Dynamics in Tris(Bipyridine) Iron-Core Dendrimers. ACS Symposium Series, 2006, , 205-214.	0.5	0
114	Deposition of silicate coatings on poly(ethylene terephthalate) for improved scratch and solvent resistance. Journal of Applied Polymer Science, 2022, 139, 51800.	2.6	0
115	A Model for Single-Molecule Information Storage. , 1998, , 231-240.		0
116	Patterned Self-Assembled Monolayers via Scanning Probe Lithography. , 2007, , 929-942.		0