

# David C Martin

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

218  
papers

15,013  
citations

62  
h-index

119  
g-index

233  
ext. papers

16,120  
ext. citations

6.4  
avg, IF

6.64  
L-index

#	Paper	IF	Citations
218	In Situ Observations of Nanofibril Nucleation and Growth during the Electrochemical Polymerization of Poly(3,4-ethylenedioxythiophene) Using Liquid-Phase Transmission Electron Microscopy. <i>Nano Letters</i> , <b>2021</b> , 21, 9077-9084	11.5	0
217	Direct Observation of Liquid-to-Solid Phase Transformations during the Electrochemical Deposition of Poly(3,4-ethylenedioxythiophene) (PEDOT) by Liquid-Phase Transmission Electron Microscopy (LPTM). <i>Macromolecules</i> , <b>2021</b> , 54, 6956-6967	5.5	4
216	Si-thiol supported atomic-scale palladium as efficient and recyclable catalyst for Suzuki coupling reaction. <i>Nanotechnology</i> , <b>2020</b> , 31, 355704	3.4	
215	Eco-Degradable and Flexible Solid-State Ionic Conductors by Clay-Nanoconfined DMSO Composites. <i>Advanced Sustainable Systems</i> , <b>2020</b> , 4, 1900134	5.9	4
214	Tailoring PEDOT properties for applications in bioelectronics. <i>Materials Science and Engineering Reports</i> , <b>2020</b> , 140, 100546	30.9	71
213	Functionalized Polythiophene Copolymers for Electronic Biomedical Devices. <i>MRS Advances</i> , <b>2020</b> , 5, 943-956	0.7	4
212	Electrically conducting polymers for bio-interfacing electronics: From neural and cardiac interfaces to bone and artificial tissue biomaterials. <i>Biosensors and Bioelectronics</i> , <b>2020</b> , 170, 112620	11.8	26
211	Morphology, Molecular Orientation, and Solid-State Characterization of 2,3-Dihydrothieno[3,4-b][1,4]dioxine-2-carboxylic Acid (EDOTacid). <i>Crystal Growth and Design</i> , <b>2019</b> , 19, 6184-6191	3.5	2
210	Impedimetric Biosensors for Detecting Vascular Endothelial Growth Factor (VEGF) Based on Poly(3,4-ethylene dioxythiophene) (PEDOT)/Gold Nanoparticle (Au NP) Composites. <i>Frontiers in Chemistry</i> , <b>2019</b> , 7, 234	5	23
209	Durability of Poly(3,4-ethylenedioxythiophene) (PEDOT) films on metallic substrates for bioelectronics and the dominant role of relative shear strength. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2019</b> , 100, 103376	4.1	6
208	Naturally Derived Melanin Nanoparticle Composites with High Electrical Conductivity and Biodegradability. <i>Particle and Particle Systems Characterization</i> , <b>2019</b> , 36, 1900166	3.1	9
207	A Hybrid 3D Printing and Robotic-assisted Embedding Approach for Design and Fabrication of Nerve Cuffs with Integrated Locking Mechanisms. <i>MRS Advances</i> , <b>2018</b> , 3, 2365-2372	0.7	7
206	In situ electrochemical polymerization of poly(3,4-ethylenedioxythiophene) (PEDOT) for peripheral nerve interfaces. <i>MRS Communications</i> , <b>2018</b> , 8, 1043-1049	2.7	16
205	Growth of anisotropic single crystals of a random copolymer, poly[(R)-3-hydroxybutyrate-co-(R)-3-hydroxyhexanoate] driven by cooperative CH <sub>2</sub> ...O H-bonding. <i>Polymer</i> , <b>2018</b> , 154, 111-118	3.9	7
204	Enhanced PEDOT adhesion on solid substrates with electrografted P(EDOT-NH). <i>Science Advances</i> , <b>2017</b> , 3, e1600448	14.3	94
203	Single Electrospun PLLA and PCL Polymer Nanofibers: Increased Molecular Orientation with Decreased Fiber Diameter. <i>Polymer</i> , <b>2017</b> , 118, 143-149	3.9	24
202	Impedance Spectroscopy of Spin-Cast and Electrochemically Deposited PEDOT:PSS Films on Microfabricated Electrodes with Various Areas. <i>ChemElectroChem</i> , <b>2017</b> , 4, 2321-2327	4.3	52

201	Nanoarchitecturing of Natural Melanin Nanospheres by Layer-by-Layer Assembly: Macroscale Anti-inflammatory Conductive Coatings with Optoelectronic Tunability. <i>Biomacromolecules</i> , <b>2017</b> , 18, 1908-1917	6.9	23
200	POSS-ProDOT Crosslinking of PEDOT. <i>Journal of Materials Chemistry B</i> , <b>2017</b> , 5, 5019-5026	7.3	12
199	Polymorphic Distribution in Individual Electrospun Poly[(R)-3-hydroxybutyrate-co-(R)-3-hydroxyhexanoate] (PHBHx) Nanofibers. <i>Macromolecules</i> , <b>2017</b> , 50, 5510-5517	5.5	12
198	Biofunctionalization of PEDOT films with laminin-derived peptides. <i>Acta Biomaterialia</i> , <b>2016</b> , 41, 235-46	10.8	27
197	Biofunctionalization of polydioxothiophene derivatives for biomedical applications. <i>Journal of Materials Chemistry B</i> , <b>2016</b> , 4, 4952-4968	7.3	63
196	Stiffness, strength and adhesion characterization of electrochemically deposited conjugated polymer films. <i>Acta Biomaterialia</i> , <b>2016</b> , 31, 114-121	10.8	38
195	Development of a Regenerative Peripheral Nerve Interface for Control of a Neuroprosthetic Limb. <i>BioMed Research International</i> , <b>2016</b> , 2016, 5726730	3	48
194	The effect of collector gap width on the extent of molecular orientation in polymer nanofibers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2016</b> , 54, 617-623	2.6	12
193	Interfacing Electronic and Ionic Charge Transport in Bioelectronics. <i>ChemElectroChem</i> , <b>2016</b> , 3, 686-688	4.3	49
192	Molecular design, synthesis, and characterization of conjugated polymers for interfacing electronic biomedical devices with living tissue. <i>MRS Communications</i> , <b>2015</b> , 5, 131-152	2.7	52
191	Post-polymerization functionalization of poly(3,4-propylenedioxythiophene) (PProDOT) via thiol-ene "click" chemistry. <i>Journal of Materials Chemistry B</i> , <b>2015</b> , 3, 5028-5034	7.3	50
190	Direct Imaging of the Electrochemical Deposition of Poly(3,4-ethylenedioxythiophene) by Transmission Electron Microscopy. <i>ACS Macro Letters</i> , <b>2015</b> , 4, 897-900	6.6	29
189	Discovery of Form Crystal Structure in Electrospun Poly[(R)-3-hydroxybutyrate-co-(R)-3-hydroxyhexanoate] (PHBHx) Nanofibers: From Fiber Mats to Single Fibers. <i>Macromolecules</i> , <b>2015</b> , 48, 6197-6205	5.5	60
188	Synthesis and characterization of bicontinuous cubic poly(3,4-ethylene dioxythiophene) gyroid (PEDOT GYR) gels. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 5115-23	3.6	25
187	In Situ Electrochemical Deposition of Poly(3,4-ethylenedioxythiophene) (PEDOT). <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 1825-1826	0.5	
186	Significant enhancement of PEDOT thin film adhesion to inorganic solid substrates with EDOT-acid. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 15388-94	9.5	75
185	Poly[3,4-ethylene dioxythiophene (EDOT) -co- 1,3,5-tri[2-(3,4-ethylene dioxythienyl)]-benzene (EPh)] copolymers (PEDOT-co-EPh): optical, electrochemical and mechanical properties. <i>Journal of Materials Chemistry B</i> , <b>2015</b> , 3, 5010-5020	7.3	38
184	Shear-Induced Solution Crystallization of Poly(3-hexylthiophene) (P3HT). <i>Macromolecules</i> , <b>2014</b> , 47, 3343-3349	30	30

183	In vivo polymerization of poly(3,4-ethylenedioxythiophene) in the living rat hippocampus does not cause a significant loss of performance in a delayed alternation task. <i>Journal of Neural Engineering</i> , <b>2014</b> , 11, 026005	5	45
182	Electrochemical deposition and characterization of carboxylic acid functionalized PEDOT copolymers. <i>Journal of Materials Research</i> , <b>2014</b> , 29, 2835-2844	2.5	22
181	Decellular biological scaffold polymerized with PEDOT for improving peripheral nerve interface charge transfer. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2014</b> , 2014, 422-5	0.9	2
180	Protection and Repair of Hearing <b>2014</b> , 1375-1395		
179	Regenerative peripheral nerve interface viability and signal transduction with an implanted electrode. <i>Plastic and Reconstructive Surgery</i> , <b>2014</b> , 133, 1380-1394	2.7	91
178	Synthesis, copolymerization and peptide-modification of carboxylic acid-functionalized 3,4-ethylenedioxythiophene (EDOTacid) for neural electrode interfaces. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2013</b> , 1830, 4288-93	4	61
177	Synthesis and structure of substituted pentathienoacenes. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 3686	7.1	8
176	Highly Aligned Poly(3,4-ethylene dioxythiophene) (PEDOT) Nano- and Microscale Fibers and Tubes. <i>Polymer</i> , <b>2013</b> , 54, 702-708	3.9	66
175	Biological and electrophysiologic effects of poly(3,4-ethylenedioxythiophene) on regenerating peripheral nerve fibers. <i>Plastic and Reconstructive Surgery</i> , <b>2013</b> , 132, 374-385	2.7	7
174	The use of a dual PEDOT and RGD-functionalized alginate hydrogel coating to provide sustained drug delivery and improved cochlear implant function. <i>Biomaterials</i> , <b>2012</b> , 33, 1982-90	15.6	94
173	Electron Microscopy of Organic Materials <b>2012</b> , 509-525		1
172	Molecular Orientation in Electrospun Poly(vinylidene fluoride) Fibers.. <i>ACS Macro Letters</i> , <b>2012</b> , 1, 428-436	3.16	65
171	Patterning of periodic nano-cavities on PEDOT-PSS using nanosphere-assisted near-field optical enhancement and laser interference lithography. <i>Nanotechnology</i> , <b>2012</b> , 23, 015304	3.4	13
170	Functional Conducting Polymers via Thiol-ene Chemistry. <i>Biosensors</i> , <b>2012</b> , 2, 305-17	5.9	15
169	Morphological and dimensional control via hierarchical assembly of doped oligoaniline single crystals. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 9251-62	16.4	93
168	Oligoaniline crystals: morphology control, hierarchical assembly and structure-property relationships. <i>Materials Research Society Symposia Proceedings</i> , <b>2012</b> , 1402, 48		
167	In vivo polymerization of poly(3,4-ethylenedioxythiophene) (PEDOT) in rodent cerebral cortex. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2011</b> , 2011, 5412-5	0.9	17
166	Effect of Polymerization Methods on Peripheral Nerve Regeneration. <i>Plastic and Reconstructive Surgery</i> , <b>2011</b> , 128, 90-91	2.7	3

165	In vitro and in vivo evaluation of PEDOT microelectrodes for neural stimulation and recording. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , <b>2011</b> , 19, 307-16	4.8	205
164	Structural, chemical and electrochemical characterization of poly(3,4-ethylenedioxythiophene) (PEDOT) prepared with various counter-ions and heat treatments. <i>Polymer</i> , <b>2011</b> , 52, 1302-1308	3.9	67
163	Direct local polymerization of poly(3,4-ethylenedioxythiophene) in rat cortex. <i>Progress in Brain Research</i> , <b>2011</b> , 194, 263-71	2.9	10
162	X-ray Photoelectron Spectroscopy Study of Counterion Incorporation in Poly(3,4-ethylenedioxythiophene) (PEDOT) 2: Polyanion Effect, Toluenesulfonate, and Small Anions. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 14992-14997	3.8	53
161	Poly(5,6-dimethoxyindole-2-carboxylic acid) (PDMICA): A Melanin-Like Polymer with Unique Electrochromic and Structural Properties. <i>Macromolecules</i> , <b>2010</b> , 43, 3770-3774	5.5	20
160	Effect of Anionic Hydration on Counterion Incorporation in Poly(3,4-ethylenedioxythiophene): An X-ray Photoelectron Spectroscopy Study. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 14998-15004	3.8	3
159	Effect of Counter-Ion Charge and Hydration on Poly(3,4-ethylenedioxythiophene) (PEDOT) Studied with X-ray Photoelectron Spectroscopy. <i>Microscopy and Microanalysis</i> , <b>2010</b> , 16, 424-425	0.5	
158	In vivo electrical conductivity across critical nerve gaps using poly(3,4-ethylenedioxythiophene)-coated neural interfaces. <i>Plastic and Reconstructive Surgery</i> , <b>2010</b> , 126, 1865-1873	2.7	20
157	The Morphology of Poly(3,4-Ethylenedioxythiophene). <i>Polymer Reviews</i> , <b>2010</b> , 50, 340-384	14	140
156	Improved preservation of the tissue surrounding percutaneous devices by hyaluronic acid and dermatan sulfate in a human skin explant model. <i>Annals of Biomedical Engineering</i> , <b>2010</b> , 38, 1098-110	4.7	9
155	Accelerated neuritogenesis and maturation of primary spinal motor neurons in response to nanofibers. <i>Developmental Neurobiology</i> , <b>2010</b> , 70, 589-603	3.2	62
154	Direct fabrication of periodic patterns with hierarchical sub-wavelength structures on poly(3,4-ethylene dioxythiophene)/poly(styrene sulfonate) thin films using femtosecond laser interference patterning. <i>Applied Surface Science</i> , <b>2010</b> , 256, 1708-1713	6.7	19
153	Conducting polymers on hydrogel-coated neural electrode provide sensitive neural recordings in auditory cortex. <i>Acta Biomaterialia</i> , <b>2010</b> , 6, 57-62	10.8	162
152	Conducting-polymer nanotubes improve electrical properties, mechanical adhesion, neural attachment, and neurite outgrowth of neural electrodes. <i>Small</i> , <b>2010</b> , 6, 421-9	11	327
151	Continuous delivery of biomaterials to the skin-percutaneous device interface using a fluid pump. <i>Artificial Organs</i> , <b>2010</b> , 34, E27-33	2.6	4
150	Conduction Properties Of Decellularized Nerve Biomaterials. <i>IFMBE Proceedings</i> , <b>2010</b> , 32, 430-433	0.2	7
149	Poly(3,4-ethylenedioxythiophene) as a Micro-Neural Interface Material for Electrostimulation. <i>Frontiers in Neuroengineering</i> , <b>2009</b> , 2, 7		129
148	Engineering and development of a stable, low-impedance, bioelectrical peripheral nerve interface. <i>Journal of the American College of Surgeons</i> , <b>2009</b> , 209, S76	4.4	2

147	Multifunctional Nanobiomaterials for Neural Interfaces. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 573-585	5.6	327
146	Interfacing Conducting Polymer Nanotubes with the Central Nervous System: Chronic Neural Recording using Poly(3,4-ethylenedioxythiophene) Nanotubes. <i>Advanced Materials</i> , <b>2009</b> , 21, 3764-3770	2.4	217
145	Novel organotypic cultures of human skin explants with an implant-tissue biomaterial interface. <i>Annals of Biomedical Engineering</i> , <b>2009</b> , 37, 401-9	4.7	15
144	Direct laser interference patterning of poly(3,4-ethylene dioxythiophene)-poly(styrene sulfonate) (PEDOT-PSS) thin films. <i>Applied Surface Science</i> , <b>2009</b> , 255, 9186-9192	6.7	34
143	Controlled solution deposition and systematic study of charge-transport anisotropy in single crystal and single-crystal textured TIPS pentacene thin films. <i>Organic Electronics</i> , <b>2009</b> , 10, 696-703	3.5	97
142	In vitro integration of human skin dermis with porous cationic hydrogels. <i>Acta Biomaterialia</i> , <b>2009</b> , 5, 3337-45	10.8	6
141	X-ray Photoelectron Spectroscopy Study of Counterion Incorporation in Poly(3,4-ethylenedioxythiophene). <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 5585-5592	3.8	75
140	PEDOT coated microelectrode arrays for chronic neural recording and stimulation <b>2009</b> ,		9
139	Layered carbon nanotube-polyelectrolyte electrodes outperform traditional neural interface materials. <i>Nano Letters</i> , <b>2009</b> , 9, 4012-8	11.5	103
138	In situ polymerization of a conductive polymer in acellular muscle tissue constructs. <i>Tissue Engineering - Part A</i> , <b>2008</b> , 14, 423-32	3.9	62
137	Localized cell and drug delivery for auditory prostheses. <i>Hearing Research</i> , <b>2008</b> , 242, 117-31	3.9	55
136	The influence of side chains on the structures and properties of functionalized pentacenes. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 1961		85
135	Percutaneous Biomedical Device with a Regenerative Materials Interface. <i>Materials Research Society Symposia Proceedings</i> , <b>2008</b> , 1136, 40901		
134	Grain-boundary-limited charge transport in solution-processed 6,13 bis(tri-isopropylsilyl)ethynyl pentacene thin film transistors. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 114513	2.5	94
133	The design of electrospun PLLA nanofiber scaffolds compatible with serum-free growth of primary motor and sensory neurons. <i>Acta Biomaterialia</i> , <b>2008</b> , 4, 863-75	10.8	128
132	Experimental and theoretical characterization of implantable neural microelectrodes modified with conducting polymer nanotubes. <i>Biomaterials</i> , <b>2008</b> , 29, 1273-83	15.6	264
131	In-vivo Evaluation of Chronically Implanted Neural Microelectrode Arrays Modified with Poly (3,4-ethylenedioxythiophene) Nanotubes <b>2007</b> ,		16
130	Mechanical properties of polyurethane/montmorillonite nanocomposite prepared by melt mixing. <i>Journal of Applied Polymer Science</i> , <b>2007</b> , 106, 712-721	2.9	24

129	Effect of Immobilized Nerve Growth Factor on Conductive Polymers: Electrical Properties and Cellular Response. <i>Advanced Functional Materials</i> , <b>2007</b> , 17, 79-86	15.6	229
128	Self-Lubricating Nano-Ball-Bearings. <i>Advanced Materials</i> , <b>2007</b> , 19, 82-86	24	29
127	The brain tissue response to implanted silicon microelectrode arrays is increased when the device is tethered to the skull. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2007</b> , 82, 169-78	5.4	247
126	Aligned electrospun nanofibers specify the direction of dorsal root ganglia neurite growth. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2007</b> , 83, 636-45	5.4	302
125	Self assembly and optical properties of dendrimer nanocomposite multilayers. <i>Macromolecular Bioscience</i> , <b>2007</b> , 7, 1032-46	5.5	9
124	Polymerization of the conducting polymer poly(3,4-ethylenedioxythiophene) (PEDOT) around living neural cells. <i>Biomaterials</i> , <b>2007</b> , 28, 1539-52	15.6	416
123	Microstructure and mechanical properties of polyurethane/nylon/montmorillonite nanocomposite. <i>Fibers and Polymers</i> , <b>2007</b> , 8, 43-49	2	6
122	Electrochemical polymerization of conducting polymers in living neural tissue. <i>Journal of Neural Engineering</i> , <b>2007</b> , 4, L6-L13	5	152
121	Femtosecond pulsed laser patterning of poly(3,4-ethylene dioxythiophene)-poly(styrenesulfonate) thin films on gold/palladium substrates. <i>Journal of Applied Physics</i> , <b>2007</b> , 102, 013107	2.5	15
120	Morphology and molecular orientation of thin-film bis(triisopropylsilylethynyl) pentacene. <i>Journal of Materials Research</i> , <b>2007</b> , 22, 1701-1709	2.5	85
119	Solution-processed polycrystalline copper tetrabenzoporphyrin thin-film transistors. <i>Synthetic Metals</i> , <b>2007</b> , 157, 190-197	3.6	51
118	Electrochemical fabrication of conducting polymer poly(3,4-ethylenedioxythiophene) (PEDOT) nanofibrils on microfabricated neural prosthetic devices. <i>Journal of Biomaterials Science, Polymer Edition</i> , <b>2007</b> , 18, 1075-89	3.5	32
117	Soft, Fuzzy, and Bioactive Conducting Polymers for Improving the Chronic Performance of Neural Prosthetic Devices. <i>Frontiers in Neuroengineering Series</i> , <b>2007</b> , 177-219		10
116	Protection and Repair of Audition <b>2007</b> , 995-1008		1
115	Conducting-Polymer Nanotubes for Controlled Drug Release. <i>Advanced Materials</i> , <b>2006</b> , 18, 405-409	24	730
114	Impedance spectroscopy and nanoindentation of conducting poly(3,4-ethylenedioxythiophene) coatings on microfabricated neural prosthetic devices. <i>Journal of Materials Research</i> , <b>2006</b> , 21, 1124-1132	2.5	56
113	Thermally induced solid-state phase transition of bis(triisopropylsilylethynyl) pentacene crystals. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 16397-403	3.4	98
112	Chronic neural recordings using silicon microelectrode arrays electrochemically deposited with a poly(3,4-ethylenedioxythiophene) (PEDOT) film. <i>Journal of Neural Engineering</i> , <b>2006</b> , 3, 59-70	5	504

111	Imaging of crystal morphology and molecular simulations of surface energies in pentacene thin films. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 6066-71	3.4	41
110	Triphasic nanocolloids. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 6796-7	16.4	136
109	Nanostructured Conducting Polymer Coatings for Biomedical Devices. <i>Microscopy and Microanalysis</i> , <b>2006</b> , 12, 550-551	0.5	2
108	Orientation Development in Electrospun Liquid Crystalline Polymer Nanofibers. <i>ACS Symposium Series</i> , <b>2006</b> , 330-342	0.4	2
107	Thermal and mechanical cracking in bis(triisopropylsilylethynyl) pentacene thin films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2006</b> , 44, 3631-3641	2.6	53
106	Sustained release of dexamethasone from hydrophilic matrices using PLGA nanoparticles for neural drug delivery. <i>Biomaterials</i> , <b>2006</b> , 27, 3031-7	15.6	350
105	Surface modification of neural probes with conducting polymer poly(hydroxymethylated-3,4-ethylenedioxythiophene) and its biocompatibility. <i>Applied Biochemistry and Biotechnology</i> , <b>2006</b> , 128, 117-30	3.2	70
104	A finite-element model of the mechanical effects of implantable microelectrodes in the cerebral cortex. <i>Journal of Neural Engineering</i> , <b>2005</b> , 2, 103-13	5	270
103	Neuronal cell loss accompanies the brain tissue response to chronically implanted silicon microelectrode arrays. <i>Experimental Neurology</i> , <b>2005</b> , 195, 115-26	5.7	632
102	Biphasic Janus particles with nanoscale anisotropy. <i>Nature Materials</i> , <b>2005</b> , 4, 759-63	27	632
101	Thickness-Driven Orthorhombic to Triclinic Phase Transformation in Pentacene Thin Films. <i>Advanced Materials</i> , <b>2005</b> , 17, 903-907	24	122
100	Ordered surfactant-templated poly(3,4-ethylenedioxythiophene) (PEDOT) conducting polymer on microfabricated neural probes. <i>Acta Biomaterialia</i> , <b>2005</b> , 1, 125-36	10.8	117
99	Finite strain response, microstructural evolution and phase transformation of crystalline isotactic polypropylene. <i>Polymer</i> , <b>2005</b> , 46, 455-470	3.9	55
98	High resolution electron microscopy of ordered polymers and organic molecular crystals: Recent developments and future possibilities. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2005</b> , 43, 1749-1778	2.6	44
97	Microporous conducting polymers on neural microelectrode arrays. <i>Sensors and Actuators B: Chemical</i> , <b>2004</b> , 101, 133-142	8.5	77
96	Conducting polymers grown in hydrogel scaffolds coated on neural prosthetic devices. <i>Journal of Biomedical Materials Research Part B</i> , <b>2004</b> , 71, 577-85		225
95	Low-voltage electron microscopy of polymer and organic molecular thin films. <i>Ultramicroscopy</i> , <b>2004</b> , 99, 247-56	3.1	85
94	Electrochemical polymerization and properties of PEDOT/S-EDOT on neural microelectrode arrays. <i>Journal of Electroanalytical Chemistry</i> , <b>2004</b> , 573, 43-48	4.1	75



93	Microporous conducting polymers on neural microelectrode arrays: II. Physical characterization. <i>Sensors and Actuators A: Physical</i> , <b>2004</b> , 113, 204-211	3.9	88
92	Electrochemical polymerization of poly(hydroxymethylated-3,4-ethylenedioxythiophene) (PEDOT-MeOH) on multichannel neural probes. <i>Sensors and Actuators B: Chemical</i> , <b>2004</b> , 99, 437-443	8.5	110
91	Molecular vacancies in herringbone crystals. <i>Philosophical Magazine</i> , <b>2004</b> , 84, 1955-1976	1.6	7
90	Lattice Bending in Electrooptically Active Poly(nonylbithiazole) and Poly(nonylbisoxazole). <i>Macromolecules</i> , <b>2004</b> , 37, 2872-2879	5.5	8
89	Near-surface deformation under scratches in polypropylene blends Part I Microscopic characterization of deformation. <i>Journal of Materials Science</i> , <b>2003</b> , 38, 803-815	4.3	31
88	Elastica bend testing of the effective interfacial shear strength and critical deformation strains of brittle coatings on ductile substrates. <i>Progress in Organic Coatings</i> , <b>2003</b> , 48, 332-336	4.8	7
87	In vivo studies of polypyrrole/peptide coated neural probes. <i>Biomaterials</i> , <b>2003</b> , 24, 777-87	15.6	435
86	Fuzzy gold electrodes for lowering impedance and improving adhesion with electrodeposited conducting polymer films. <i>Sensors and Actuators A: Physical</i> , <b>2003</b> , 103, 384-394	3.9	135
85	Electrochemical deposition and characterization of poly(3,4-ethylenedioxythiophene) on neural microelectrode arrays. <i>Sensors and Actuators B: Chemical</i> , <b>2003</b> , 89, 92-102	8.5	430
84	Polymer-Induced Microstructure Variation in Zinc Oxide Crystals Precipitated from Aqueous Solution. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 2660-2666	3.4	100
83	Direct Imaging of Defect Structures in Pentacene Nanocrystals. <i>Advanced Materials</i> , <b>2002</b> , 14, 54-57	24	27
82	Controlled local organization of lyotropic liquid crystalline polymer thin films with electric fields. <i>Polymer</i> , <b>2002</b> , 43, 4421-4436	3.9	18
81	Microstructural studies of interfacial deformation in painted thermoplastic polyolefins (TPOs). <i>Journal of Materials Science</i> , <b>2002</b> , 37, 4783-4791	4.3	15
80	Crystal Structure of and Defects in the Pentacene Thin Film Phase. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 734, 221		1
79	Molecular Modeling of Defect Structures in Pentacene. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 734, 541		
78	Electrochemical Polymerization of Conducting Polymer Coatings on Neural Prosthetic Devices: Nanomushrooms of Polypyrrole Using Block Copolymer Thin Films as Templates. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 734, 841		2
77	Tailored Nanofiber Morphologies Using Modulated Electrospinning for Biomedical Applications. <i>Materials Research Society Symposia Proceedings</i> , <b>2002</b> , 736, 1		3
76	In-Situ Synchrotron WAXD/SAXS Studies of Structural Development during PBO/PPA Solution Spinning. <i>Macromolecules</i> , <b>2002</b> , 35, 433-439	5.5	30

75	Molecular packing and morphology of oligo(m-phenylene ethynylene) foldamers. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 8605-10	16.4	41
74	Surface characterization of porous, biocompatible protein polymer thin films. <i>Biomaterials</i> , <b>2001</b> , 22, 1289-300	15.6	90
73	Electrochemical deposition and characterization of conducting polymer polypyrrole/PSS on multichannel neural probes. <i>Sensors and Actuators A: Physical</i> , <b>2001</b> , 93, 8-18	3.9	275
72	Quantitative measurement of adhesion between polypropylene blends and paints by tensile mechanical testing. <i>Polymer Engineering and Science</i> , <b>2001</b> , 41, 440-448	2.3	16
71	Dissolution of poorly crystalline apatite crystals by osteoclasts determined on artificial thin-film apatite. <i>Journal of Biomedical Materials Research Part B</i> , <b>2001</b> , 56, 250-6		17
70	Surface modification of neural recording electrodes with conducting polymer/biomolecule blends. <i>Journal of Biomedical Materials Research Part B</i> , <b>2001</b> , 56, 261-72		410
69	Influence of structural variations on high-resolution electron microscopy images of poly[1,6-di(N-carbazolyl)2,4-hexadiyne] nanocrystals. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>2001</b> , 81, 1651-1673		14
68	Analysis of Displacement Fields near Dislocation Cores in Ordered Polymers. <i>Macromolecules</i> , <b>2001</b> , 34, 7416-7426	5.5	9
67	Super-Helically Twisted Strands of Poly(m-phenylene isophthalamide) (MPDI). <i>Macromolecules</i> , <b>2001</b> , 34, 9053-9058	5.5	21
66	Low Voltage Table-Top Electron Microscopy of Polymer and Organic Molecular Thin Films. <i>Materials Research Society Symposia Proceedings</i> , <b>2001</b> , 711, 1		1
65	Surface modification of neural recording electrodes with conducting polymer/biomolecule blends <b>2001</b> , 56, 261		2
64	Defect-mediated curvature and twisting in polymer crystals. <i>Journal of Physical Organic Chemistry</i> , <b>2000</b> , 13, 816-829	2.1	32
63	Chronic recording of regenerating VIIIth nerve axons with a sieve electrode. <i>Journal of Neurophysiology</i> , <b>2000</b> , 83, 611-5	3.2	67
62	Mechanical properties of biocompatible protein polymer thin films. <i>Journal of Materials Research</i> , <b>2000</b> , 15, 231-242	2.5	33
61	Poly(nonylbisoxazole): A Member of a New Class of Conjugated Polymer. <i>Chemistry of Materials</i> , <b>2000</b> , 12, 2798-2804	9.6	22
60	Hexagonal Packing of Oligo(m-phenylene ethynylene)s in the Solid State: Helical Nanotubules. <i>Journal of the American Chemical Society</i> , <b>2000</b> , 122, 6134-6135	16.4	52
59	Thermally crosslinkable thermoplastic PET-co-XTA copolyesters. <i>Polymer</i> , <b>1999</b> , 40, 53-64	3.9	15
58	Processing and microstructural characterization of porous biocompatible protein polymer thin films. <i>Polymer</i> , <b>1999</b> , 40, 7397-7407	3.9	566

57	Impedance spectroscopy of protein polymer modified silicon micromachined probes. <i>Sensors and Actuators A: Physical</i> , <b>1999</b> , 72, 203-216	3.9	24
56	Finite element modeling of banded structures in Bombyx mori silk fibres. <i>International Journal of Biological Macromolecules</i> , <b>1999</b> , 24, 139-44	7.9	7
55	A Comparison of Structures and Optoelectronic Properties of Oxygen- and Sulfur-Containing Heterocycles: Conjugated Nonylbisoxazole and Nonylbithiazole Oligomers. <i>Chemistry of Materials</i> , <b>1999</b> , 11, 2274-2284	9.6	30
54	Structural Characterization of Electrooptically Active Poly(nonylbithiazole). <i>Macromolecules</i> , <b>1999</b> , 32, 4558-4565	5.5	38
53	N-Methylated Poly(nonylbithiazole): A New n-Dopable, Conjugated Poly(ionomer). <i>Chemistry of Materials</i> , <b>1998</b> , 10, 13-16	9.6	23
52	Synthesis and Characterization of Conjugated, n-Dopable, Bithiazole-Containing Polymers. <i>Chemistry of Materials</i> , <b>1998</b> , 10, 1713-1719	9.6	48
51	Microstructural Characterization of Bombyx mori Silk Fibers. <i>Macromolecules</i> , <b>1998</b> , 31, 8857-8864	5.5	157
50	π-Stacking in Conjugated Polymers and Oligomers: A Structural and Spectroscopic Study. <i>Materials Research Society Symposia Proceedings</i> , <b>1998</b> , 548, 285		2
49	Thermally crosslinkable thermotropic copolyesters: synthesis, characterization, and processing. <i>Polymer</i> , <b>1997</b> , 38, 6009-6022	3.9	8
48	Processing and Characterization of Protein Polymers <b>1997</b> , 339-370		7
47	Quantitative Measurements of Polymer Chain-End Edge Dislocation Strain Fields by High Resolution Electron Microscopy. <i>Macromolecules</i> , <b>1996</b> , 29, 842-851	5.5	8
46	Construction and Characterization of [1,6-Di(N-carbazolyl)-2,4-hexadiyne] Diacetylene Polymer Bicrystals. <i>Macromolecules</i> , <b>1996</b> , 29, 568-580	5.5	13
45	Microstructure of Thermally Crosslinkable Poly(Ethylene Terephthalate) (PET-co-XTA) Benzocyclobutene Functionalized Copolymers. <i>Materials Research Society Symposia Proceedings</i> , <b>1996</b> , 461, 223		1
44	High resolution electron microscopy of crystalline polymer wedges. <i>Ultramicroscopy</i> , <b>1996</b> , 62, 215-28	3.1	2
43	Quantitative characterization of surface deformation in polymer composites using digital image analysis. <i>Polymer Engineering and Science</i> , <b>1996</b> , 36, 298-304	2.3	55
42	Dynamic transmission electron microscopy of the [1,6-di(N-carbazolyl)-2,4-hexadiyne] diacetylene monomer-polymer phase transformation. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1996</b> , 74, 195-213		6
41	Crystal growth and textured microstructures of 1,6-di(N-carbazolyl)-2,4 hexadiyne diacetylene. <i>Journal of Materials Research</i> , <b>1996</b> , 11, 2921-2932	2.5	4
40	Quantitative high-resolution electron microscopy (HREM) of defects in ordered polymers. <i>Proceedings Annual Meeting Electron Microscopy Society of America</i> , <b>1996</b> , 54, 166-167		

39	Physical and chemical evolution of PMDA-ODA during thermal imidization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>1995</b> , 33, 559-569	2.6	21
38	Chain-End Defects in Extended-Chain Polymer Solids. <i>MRS Bulletin</i> , <b>1995</b> , 20, 47-51	3.2	1
37	Defects in Polymers. <i>MRS Bulletin</i> , <b>1995</b> , 20, 13-17	3.2	2
36	Molecular stress and strain in an oriented extended-chain polymer of finite molecular length. <i>Macromolecules</i> , <b>1995</b> , 28, 6161-6174	5.5	18
35	Poly(alkylbithiazoles): A New Class of Variable-Bandgap, Conjugated Polymer. <i>Chemistry of Materials</i> , <b>1995</b> , 7, 2232-2234	9.6	92
34	Processing and Characterization of Thermally Cross-Linkable Poly[p-phenyleneterephthalamide-co-p-1,2-dihydrocyclobutaphenyleneterephthalamide] (PPTA-co-XTA) Copolymer Fibers. <i>Macromolecules</i> , <b>1995</b> , 28, 3301-3312	5.5	25
33	Electric Field Mediated Deposition of Bioactive Polypeptides on Neural Prosthetic Devices. <i>Materials Research Society Symposia Proceedings</i> , <b>1995</b> , 414, 23		9
32	Experimental high-resolution electron microscopy of polymers. <i>Polymer</i> , <b>1995</b> , 36, 1743-1759	3.9	65
31	Swelling studies of crosslinked poly(p-phenylene terephthalamide) copolymers in sulfuric acid. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>1994</b> , 32, 1017-1021	2.6	7
30	Morphology and primary crystal structure of a silk-like protein polymer synthesized by genetically engineered <i>Escherichia coli</i> bacteria. <i>Biopolymers</i> , <b>1994</b> , 34, 1049-58	2.2	77
29	Crosslinking chemistry for high-performance polymer networks. <i>Polymer</i> , <b>1994</b> , 35, 5012-5017	3.9	23
28	Microstructural Characterization of Crosslinkable p-Phenylene Terephthalamide-Terephthalic Acid Derivative Copolymer Fibers. <i>Macromolecules</i> , <b>1994</b> , 27, 6507-6514	5.5	7
27	Structural Characterization of Ordered Phases in Hydrocarbon Dendrimers. <i>Materials Research Society Symposia Proceedings</i> , <b>1994</b> , 351, 413		
26	Atomic Force Microscopy of Polymer Droplets <b>1994</b> , 217-227		
25	Structural Evolution of Genetically Engineered Silklike Protein Polymers. <i>ACS Symposium Series</i> , <b>1993</b> , 137-147	0.4	
24	Direct imaging of the diacetylene solid-state monomer-polymer phase transformation. <i>Science</i> , <b>1993</b> , 260, 1489-91	33.3	23
23	High-resolution microscopy of PMDA-ODA polyimide single crystals. <i>Macromolecules</i> , <b>1993</b> , 26, 6557-6565	5.5	33
22	Cross-linkable copolymers of poly(p-phenyleneterephthalamide). <i>Chemistry of Materials</i> , <b>1993</b> , 5, 248-250	0.6	23

21	Bioactive Silk-Like Protein Polymer Films on Silicon Devices. <i>Materials Research Society Symposia Proceedings</i> , <b>1993</b> , 330, 171		2
20	Dislocation mediated lattice bending in 1,6-di (N-carbazolyl)-2,4 hexadiyne (DCHD) polydiacetylene droplets. <i>Journal of Materials Research</i> , <b>1992</b> , 7, 3150-3158	2.5	20
19	Lattice Bending in Poly(Diacetylene) Droplets Near Surfaces. <i>Materials Research Society Symposia Proceedings</i> , <b>1992</b> , 247, 123		1
18	Defects in [1, 6-DI(N-Carbazolyl)-2, 4-Hexadiyne] Diacetylene Crystals. <i>Materials Research Society Symposia Proceedings</i> , <b>1992</b> , 247, 723		
17	Intermolecular twist defects in extended-chain polymers. <i>Macromolecules</i> , <b>1992</b> , 25, 5171-5177	5.5	14
16	Grain boundaries in extended-chain polymers: Theory and experiment. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , <b>1991</b> , 64, 903-922		23
15	Microstructure and mechanical properties of in-situ network composite fibres of PBZT with nylon. <i>Journal of Materials Science</i> , <b>1991</b> , 26, 2365-2371	4.3	5
14	Micromechanisms of kinking in rigid-rod polymer fibres. <i>Journal of Materials Science</i> , <b>1991</b> , 26, 5171-5183	4.3	25
13	Ultrastructure of poly(p-phenylenebenzobisoxazole) fibers. <i>Macromolecules</i> , <b>1991</b> , 24, 2450-2460	5.5	88
12	Structural evolution of a model poly(imide): organization near surfaces. <i>Macromolecules</i> , <b>1991</b> , 24, 3921-3928	5.5	13
11	Maximum Entropy Reconstruction of Low Dose, High Resolution Electron Microscope Images <b>1991</b> , 129-145		
10	A scanning tunneling microscope study of single crystal polyethylene. <i>Journal of Polymer Science, Part C: Polymer Letters</i> , <b>1990</b> , 28, 399-410		11
9	Crystal morphology in pristine and doped films of poly (p-phenylene vinylene). <i>Journal of Materials Science</i> , <b>1990</b> , 25, 311-320	4.3	40
8	Maximum-entropy data restoration using both real- and Fourier-space analysis. <i>Acta Crystallographica Section A: Foundations and Advances</i> , <b>1989</b> , 45, 686-698		9
7	Fatigue fracture of reaction injection molded (RIM) nylon composites. <i>Journal of Applied Polymer Science</i> , <b>1989</b> , 37, 3029-3056	2.9	9
6	Morphology of Rigid-Rod Polymer Fibers: an Overview. <i>Materials Research Society Symposia Proceedings</i> , <b>1988</b> , 134, 415		6
5	Direct Imaging of Compressive Failure Zones in Rigid-Rod Polymer Fibers. <i>Materials Research Society Symposia Proceedings</i> , <b>1988</b> , 134, 465		2
4	Local entropy edge detection in digital images. <i>Proceedings Annual Meeting Electron Microscopy Society of America</i> , <b>1988</b> , 46, 840-841		

- 3 Observation of Defects in Crystalline Polymers by HREM. *MRS Bulletin*, **1987**, 12, 27-35 3.2 11
- 2 Ordered bicontinuous double-diamond structure of star block copolymers: a new equilibrium microdomain morphology. *Macromolecules*, **1986**, 19, 2197-2202 5.5 306
- 1 Nanostructured Conducting Polymer Biomaterials and their Applications in Controlled Drug Delivery 279-299 2