

Gary E Wnek

List of Publications by Citations

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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.

100
papers

9,150
citations

36
h-index

95
g-index

106
ext. papers

9,736
ext. citations

6.1
avg, IF

5.78
L-index

#	Paper	IF	Citations
100	Electrospinning of collagen nanofibers. <i>Biomacromolecules</i> , 2002 , 3, 232-8	6.9	1860
99	Release of tetracycline hydrochloride from electrospun poly(ethylene-co-vinylacetate), poly(lactic acid), and a blend. <i>Journal of Controlled Release</i> , 2002 , 81, 57-64	11.7	1085
98	Role of chain entanglements on fiber formation during electrospinning of polymer solutions: good solvent, non-specific polymer-polymer interaction limit. <i>Polymer</i> , 2005 , 46, 3372-3384	3.9	868
97	Electrospinning of Nanofiber Fibrinogen Structures. <i>Nano Letters</i> , 2003 , 3, 213-216	11.5	474
96	Electrospinning collagen and elastin: preliminary vascular tissue engineering. <i>Frontiers in Bioscience - Landmark</i> , 2004 , 9, 1422-32	2.8	416
95	TAILORING TISSUE ENGINEERING SCAFFOLDS USING ELECTROSTATIC PROCESSING TECHNIQUES: A STUDY OF POLY(GLYCOLIC ACID) ELECTROSPINNING. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2001 , 38, 1231-1243	2.2	336
94	Electrospinning of poly(ethylene-co-vinyl alcohol) fibers. <i>Biomaterials</i> , 2003 , 24, 907-13	15.6	303
93	Electrospinning and Stabilization of Fully Hydrolyzed Poly(Vinyl Alcohol) Fibers. <i>Chemistry of Materials</i> , 2003 , 15, 1860-1864	9.6	281
92	Electrospinning polydioxanone for biomedical applications. <i>Acta Biomaterialia</i> , 2005 , 1, 115-23	10.8	225
91	Processing of polymer nanofibers through electrospinning as drug delivery systems. <i>Materials Chemistry and Physics</i> , 2009 , 113, 296-302	4.4	218
90	Electrospinning of collagen nanofiber scaffolds from benign solvents. <i>Macromolecular Rapid Communications</i> , 2009 , 30, 539-42	4.8	173
89	Utilizing acid pretreatment and electrospinning to improve biocompatibility of poly(glycolic acid) for tissue engineering. <i>Journal of Biomedical Materials Research Part B</i> , 2004 , 71, 144-52		173
88	Two-Phase Electrospinning from a Single Electrified Jet: Microencapsulation of Aqueous Reservoirs in Poly(ethylene-co-vinyl acetate) Fibers. <i>Macromolecules</i> , 2003 , 36, 3803-3805	5.5	160
87	Mechanical properties of electrospun fibrinogen structures. <i>Acta Biomaterialia</i> , 2006 , 2, 19-28	10.8	153
86	Controlled release of ketoprofen from electrospun poly(vinyl alcohol) nanofibers. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 459, 390-396	5.3	137
85	Electrically conducting derivative of poly(p-phenylene vinylene). <i>Polymer</i> , 1979 , 20, 1441-1443	3.9	111
84	Electrically conductive polymer composites: polymerization of acetylene in polyethylene. <i>Polymer</i> , 1982 , 23, 795-797	3.9	110

83	Surface-Tension-Confined Microfluidics. <i>Langmuir</i> , 2002 , 18, 948-951	4	105
82	Correlations between electrospinnability and physical gelation. <i>Polymer</i> , 2005 , 46, 8990-9004	3.9	99
81	Arterial smooth muscle cell proliferation on a novel biomimicking, biodegradable vascular graft scaffold. <i>Journal of Biomaterials Applications</i> , 2001 , 16, 22-33	2.9	93
80	A proposal for the mechanism of conduction in polyaniline. <i>Synthetic Metals</i> , 1986 , 15, 213-218	3.6	90
79	Electrospinning of in situ crosslinked collagen nanofibers. <i>Journal of Materials Chemistry</i> , 2012 , 22, 19412		85
78	The use of progenitor cell/biodegradable MMP2-PLGA polymer constructs to enhance cellular integration and retinal repopulation. <i>Biomaterials</i> , 2010 , 31, 9-19	15.6	81
77	Electrospun fibers from wheat protein: investigation of the interplay between molecular structure and the fluid dynamics of the electrospinning process. <i>Biomacromolecules</i> , 2005 , 6, 707-12	6.9	81
76	Polymerization of acetylene. <i>Journal of Polymer Science, Polymer Letters Edition</i> , 1980 , 18, 45-52		73
75	Encapsulation of multiple biological compounds within a single electrospun fiber. <i>Small</i> , 2009 , 5, 1508-1511		69
74	Synthesis of Polysiloxanes Bearing Cyclic Carbonate Side Chains. Dielectric Properties and Ionic Conductivities of Lithium Triflate Complexes. <i>Macromolecules</i> , 1994 , 27, 4076-4079	5.5	64
73	Manufacturing of polymer continuous nanofibers using a novel co-extrusion and multiplication technique. <i>Polymer</i> , 2014 , 55, 673-685	3.9	59
72	Electrically conducting acetylene-methylacetylene copolymers. Synthesis and properties. <i>Macromolecules</i> , 1981 , 14, 479-485	5.5	54
71	Nascent morphology of polyacetylene. <i>Nature</i> , 1979 , 282, 286-288	50.4	52
70	Light Control with Liquid Crystalline Elastomers. <i>Advanced Optical Materials</i> , 2019 , 7, 1801683	8.1	49
69	Highly cited research articles in Journal of Controlled Release: Commentaries and perspectives by authors. <i>Journal of Controlled Release</i> , 2014 , 190, 29-74	11.7	47
68	Thermal and Mechanical Characterization of Electrospun Blends of Poly(lactic acid) and Poly(glycolic acid). <i>Polymer Journal</i> , 2006 , 38, 1137-1145	2.7	45
67	Improving neuron-to-electrode surface attachment via alkanethiol self-assembly: an alternating current impedance study. <i>Langmuir</i> , 2004 , 20, 7189-200	4	44
66	All-Organic, Stimuli-Responsive Polymer Composites with Electrospun Fiber Fillers.. <i>ACS Macro Letters</i> , 2012 , 1, 80-83	6.6	37

65	Electron paramagnetic resonance saturation characteristics of pristine and doped polyacetylenes. <i>Macromolecules</i> , 1982 , 15, 614-621	5.5	35
64	Characterization of polyacetylene/low density polyethylene composites prepared by in-situ polymerization. <i>Journal of Polymer Science: Polymer Chemistry Edition</i> , 1983 , 21, 2727-2737		32
63	Electrospun collagen and its applications in regenerative medicine. <i>Drug Delivery and Translational Research</i> , 2012 , 2, 313-22	6.2	31
62	Interaction of cationic polypeptides with electroactive polypyrrole/poly(styrenesulfonate) and poly(N-methylpyrrole)/poly(styrenesulfonate) films. <i>Macromolecules</i> , 1991 , 24, 5283-5287	5.5	31
61	Electrospun DOXY-h loaded-poly(acrylic acid) nanofiber mats: in vitro drug release and antibacterial properties investigation. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2014 , 25, 1292-305	3.5	30
60	Soliton formation and cis trans isomerization in polyacetylene. <i>Nature</i> , 1980 , 285, 390-392	50.4	29
59	Curing chemistry of phenylethynyl-terminated imide oligomers: Synthesis of ¹³ C-labeled oligomers and solid-state NMR studies. <i>Journal of Polymer Science Part A</i> , 2000 , 38, 3486-3497	2.5	28
58	Stimuli-Responsive and Mechanically-Switchable Electrospun Composites. <i>Macromolecules</i> , 2012 , 45, 9092-9099	5.5	26
57	Characterization of Proton Exchange Membrane Fuel Cells with Catalyst Layers Obtained by Electrospinning. <i>Electrochemical and Solid-State Letters</i> , 2005 , 8, A267		24
56	Electrospun crosslinked poly(acrylic acid) fiber constructs: towards a synthetic model of the cortical layer of nerve. <i>Polymer International</i> , 2015 , 64, 42-48	3.3	22
55	Modulating passive micromixing in 2-D microfluidic devices via discontinuities in surface energy. <i>Sensors and Actuators B: Chemical</i> , 2009 , 140, 656-662	8.5	22
54	The design and fabrication of autonomous polymer-based surface tension-confined microfluidic platforms. <i>Microfluidics and Nanofluidics</i> , 2008 , 4, 601-611	2.8	22
53	Mechanical enhancement via self-assembled nanostructures in polymer nanocomposites. <i>Soft Matter</i> , 2011 , 7, 2449	3.6	20
52	Morphological variations in polymer blends made in electric fields. <i>Chemistry of Materials</i> , 1992 , 4, 1334-1343	1.343	20
51	Flame-Retardant Polyurethane Foams: One-Pot, Bioinspired Silica Nanoparticle Coating. <i>ACS Applied Polymer Materials</i> , 2019 , 1, 2015-2022	4.3	19
50	Dielectric Spectroscopy of Polystyrene/Poly(ethylene oxide) Composites. <i>Macromolecules</i> , 1996 , 29, 5042-5045	5.5	18
49	Mouse retinal progenitor cell dynamics on electrospun poly(ϵ -caprolactone). <i>Journal of Biomaterials Science, Polymer Edition</i> , 2012 , 23, 1451-65	3.5	17
48	Intumescent, Epoxy-Based Flame-Retardant Coatings Based on Poly(acrylic acid) Compositions. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 18997-19005	9.5	16

47	Artificial Polymeric Scaffolds as Extracellular Matrix Substitutes for Autologous Conjunctival Goblet Cell Expansion 2016 , 57, 6134-6146		16
46	Polymeric Nanofiber/Antifungal Formulations Using a Novel Co-extrusion Approach. <i>AAPS PharmSciTech</i> , 2017 , 18, 1917-1924	3.9	15
45	Perspective: Do macromolecules play a role in the mechanisms of nerve stimulation and nervous transmission?. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016 , 54, 7-14	2.6	13
44	Electroless Gold Plating of 316 L Stainless Steel Beads. <i>Journal of the Electrochemical Society</i> , 1999 , 146, 2517-2521	3.9	13
43	Biomedical Nanoscience: Electrospinning Basic Concepts, Applications, and Classroom Demonstration. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 827, 171		12
42	Deformation and Elastic Recovery of Acrylate-Based Liquid Crystalline Elastomers. <i>Macromolecules</i> , 2019 , 52, 8248-8255	5.5	11
41	Tunable electroluminescence from ionomers doped with cationic lumophores. <i>Electrochimica Acta</i> , 1998 , 43, 1623-1628	6.7	11
40	Reactions of Silyl Ketene Acetal-Functionalized Polysiloxanes. Synthesis of Sulfonated Polysiloxanes. <i>Macromolecules</i> , 1994 , 27, 4080-4083	5.5	10
39	Phase behaviour of poly(ethylene oxide)/poly(methyl methacrylate) blends containing alkali metal salts. <i>Polymer</i> , 1993 , 34, 3241-3246	3.9	10
38	Synthesis and reactions of silyl ketene acetal-modified polysiloxanes. Preparation and preliminary dielectric characterization of some new polysiloxanes. <i>Polymer</i> , 1992 , 33, 4191-4196	3.9	9
37	Antimicrobial Activity of Silver Containing Crosslinked Poly(Acrylic Acid) Fibers. <i>Micromachines</i> , 2019 , 10,	3.3	9
36	NMR Characterization of Sulfonation Blockiness in Copoly(styrene-sulfonated styrene). <i>Macromolecules</i> , 2001 , 34, 3108-3110	5.5	8
35	Towards an electrochemically modulated chromatographic stationary phase. <i>Journal of Chromatography A</i> , 1995 , 707, 29-33	4.5	8
34	Industrial Applications of Inorganic Chemistry: A Junior-Senior-Level Interdisciplinary Course. <i>Journal of Chemical Education</i> , 2002 , 79, 832	2.4	7
33	Dielectric Spectroscopy of Binary Polystyrene/Poly[styrene-b-(ethylene oxide)] Blends and Ternary Composites of Polystyrene/Poly[styrene-b-(ethylene oxide)] Swollen with Homopoly(ethylene oxide). <i>Macromolecules</i> , 1996 , 29, 5046-5049	5.5	7
32	Enhanced elasticity in poly(acrylic acid) gels via synthesis in the presence of high concentrations of select salts. <i>Soft Matter</i> , 2019 , 15, 7596-7604	3.6	6
31	The effect of temperature on the impedimetric response of bioreceptor hosting hydrogels. <i>Biosensors and Bioelectronics</i> , 2011 , 26, 2275-80	11.8	5
30	Effect of crystallization on the morphologies of block copolymer/homopolymer blends cast in an electric field. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996 , 34, 309-315	2.6	5

29	Physically-cross-linked poly(vinyl alcohol) cell culture plate coatings facilitate preservation of cell-cell interactions, spheroid formation, and stemness. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2021 , 109, 1744-1753	3.5	5
28	Structure-Property Relationships of Small Organic Molecules as a Prelude to the Teaching of Polymer Science. <i>Journal of Chemical Education</i> , 2017 , 94, 1647-1654	2.4	4
27	A prototype electrochemical chromatographic column for use with proteins. <i>Analytical Chemistry</i> , 1999 , 71, 4272-7	7.8	4
26	The low-energy, charge-transfer excited states of 4-amino-4-nitrodiphenyl sulfide. <i>Journal of Chemical Physics</i> , 1992 , 97, 4018-4028	3.9	4
25	Reactions of n-type (reduced) polyacetylene with alkyl halides. <i>Macromolecules</i> , 1988 , 21, 266-268	5.5	4
24	Characterization of polyacetylene by ozonolysis. <i>Journal of Polymer Science: Polymer Chemistry Edition</i> , 1983 , 21, 301-304		4
23	Wettability of polyacetylene: surface energetics and determination of material properties. <i>Langmuir</i> , 1986 , 2, 508-513	4	4
22	Thermoformable high oxygen barrier multilayer EVOH/LDPE film/foam. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 48903	2.9	3
21	Development of a sustained fluoride delivery system. <i>Angle Orthodontist</i> , 2010 , 80, 1129-35	2.6	3
20	NEW MATERIALS DERIVED FROM POLY(4-HYDROXYSTYRENE) AS LITHIUM BATTERY CELL COMPONENTS. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2001 , 38, 933-944	2.2	3
19	N,P-Codoped, Low-Density, Amorphous Carbon Foam for High-Performance Supercapacitors: Polymer-Based Scalable Production at Low Cost. <i>Advanced Energy and Sustainability Research</i> , 2021 , 2, 2100070	1.6	3
18	The Rock of Randomness—a physical oracle for securing data off the digital grid. <i>MRS Communications</i> , 2019 , 9, 67-76	2.7	2
17	Poly (acrylic acid) (PAA) is a contact system activator with properties to stop hemorrhage. <i>Thrombosis Research</i> , 2020 , 193, 142-145	8.2	2
16	Electrophoretic calcium phosphate mineralization of collagen hydrogels. <i>Green Materials</i> , 2015 , 3, 71-79	3.2	2
15	Electrically Conductive Polymers. <i>MRS Bulletin</i> , 1987 , 12, 36-38	3.2	2
14	Tannic acid based super-intumescent coatings for prolonged fire protection of cardboard and wood. <i>SPE Polymers</i> , 2021 , 2, 153-168	1.1	2
13	Novel strategies to grow natural fibers with improved thermal stability and fire resistance. <i>Journal of Cleaner Production</i> , 2021 , 320, 128729	10.3	2
12	Engineering Value Propositions: Professional and Personal Needs 2010 , 137-144		2

11	Fabrication of Surlyn ionomer fibers using a novel coextrusion approach and mechanical property characterization. <i>Journal of Applied Polymer Science</i> , 2019 , 136, 48046	2.9	1
10	Macromolecules of the cell: a polymer science viewpoint. <i>Polymer International</i> , 2020 , 70, 885	3.3	1
9	Perspective: Comments on Simultaneous polymerization and formation of polyacetylene film on the surface of concentrated soluble ziegler-type catalyst solution, by Takeo Ito, Hideki Shirakawa, and Sakuji Ikeda, J. Polym. Sci.: Polym. Chem. Ed., 12, 11 (1974). <i>Journal of Polymer Science Part A</i> , 1996 , 34, 2531-2532	2.5	1
8	Introduction of hydrophilicity of polyacetylene film surfaces. <i>Journal of Polymer Science: Polymer Chemistry Edition</i> , 1985 , 23, 2601-2613		1
7	Factor XII Promotes Leukocyte Inflammation and Its Deficiency Results in Faster Wound Healing. <i>Blood</i> , 2011 , 118, 368-368	2.2	1
6	Microcapillary Reactors via Coaxial Electrospinning: Fabrication of Small Poly(Acrylic Acid) Gel Beads and Thin Threads of Biological Cell Dimensions. <i>Gels</i> , 2021 , 7,	4.2	1
5	An improved tactile sensing device for material characterization via friction-induced vibrations. <i>Sensors and Actuators A: Physical</i> , 2020 , 303, 111824	3.9	
4	Interaction of a Cationic Protein with Electroactive Polypyrrole/poly(styrene sulfonate) and Poly(N-methylpyrrole)/poly(styrene sulfonate) Films. <i>Annals of the New York Academy of Sciences</i> , 1991 , 618, 592-595	6.5	
3	Poly(Glycolic Acid)6312-6318		
2	Leukocyte Factor XII Mediates Inflammation and Its Deficiency Promotes Wound Healing. <i>Blood</i> , 2012 , 120, 616-616	2.2	
1	Bio-Mimicking, Electrical Excitability Phenomena Associated With Synthetic Macromolecular Systems: A Brief Review With Connections to the Cytoskeleton and Membraneless Organelles.. <i>Frontiers in Molecular Neuroscience</i> , 2022 , 15, 830892	6.1	