

# Jayant

## List of Publications by Year in descending order

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103  
papers

1,782  
citations

331259

21  
h-index

315357

38  
g-index

105  
all docs

105  
docs citations

105  
times ranked

2245  
citing authors

#	ARTICLE	IF	CITATIONS
1	Designing Supertough and Ultrastretchable Liquid Metal-Embedded Natural Rubber Composites for Soft-Matter Engineering. ACS Applied Materials & Interfaces, 2021, 13, 15610-15620.	4.0	21
2	Facile microwave assisted flame retardant treatment for cotton fabric using a biobased industrial byproduct: phytic acid. Cellulose, 2021, 28, 10655-10674.	2.4	15
3	Wearable Thermoelectric Devices Based on Three-Dimensional PEDOT:Tosylate/Cul Paper Composites. ACS Applied Materials & Interfaces, 2021, 13, 46919-46926.	4.0	11
4	Fluorination of an <i>N,N,N',N'</i> -Tetraphenylbenzidine Derivative as a Dopant-Free Hole-Transporting Material for Moisture-Resistant Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 10459-10467.	2.5	5
5	Bio-Based Flame-Retardant Coatings Based on the Synergistic Combination of Tannic Acid and Phytic Acid for Nylon-Cotton Blends. ACS Applied Materials & Interfaces, 2021, 13, 61620-61628.	4.0	44
6	Covalent functionalization of cellulose in cotton and a nylon-cotton blend with phytic acid for flame retardant properties. Cellulose, 2020, 27, 11-24.	2.4	44
7	Unusual role of labile phenolics in imparting flame resistance to polyamide. Polymer Degradation and Stability, 2020, 175, 109103.	2.7	7
8	Fire resistant polyphenols based on chemical modification of bio-derived tannic acid. Polymer Degradation and Stability, 2018, 153, 227-243.	2.7	68
9	Environment-Friendly Post-Treatment of PEDOT-Tos Films by Aqueous Vitamin C Solutions for Tuning of Thermoelectric Properties. Journal of Electronic Materials, 2018, 47, 3963-3968.	1.0	5
10	Corrigendum to "Effects of Nanoimprinted Structures on the Performance of Organic Solar Cells". Journal of Nanomaterials, 2018, 2018, 1-1.	1.5	0
11	Effects of Nanoimprinted Structures on the Performance of Organic Solar Cells. Journal of Nanomaterials, 2018, 2018, 1-6.	1.5	1
12	Layer-by-layer assembly of halogen-free polymeric materials on nylon/cotton blend for flame retardant applications. Fire and Materials, 2016, 40, 206-218.	0.9	17
13	Synthesis and Sensing Applications of Fluorescent 3-Cinnamoyl Coumarins. Sensors, 2015, 15, 31987-31998.	2.1	7
14	Unraveling the mechanism of thermal and thermo-oxidative degradation of tannic acid. Thermochimica Acta, 2015, 605, 77-85.	1.2	138
15	Performance enhancement of fullerene based solar cells upon NIR laser irradiation. RSC Advances, 2015, 5, 48526-48532.	1.7	4
16	Technical Note: Nanometric organic photovoltaic thin film detectors for dose monitoring in diagnostic x-ray imaging. Medical Physics, 2015, 42, 4027-4032.	1.6	9
17	Biocatalytic Synthesis of Fluorescent Conjugated Indole Oligomers. Bioengineering, 2014, 1, 246-259.	1.6	12
18	Two-photon active polymeric nanoparticles for high contrast in vitro imaging. RSC Advances, 2014, 4, 1116-1119.	1.7	1

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19	Biocatalytic synthesis of unusually photoluminescent oligomers and electrically conducting polymers of 4-((3-pyrrolyl)butyric acid. Journal of Applied Polymer Science, 2014, 131, .	1.3	1
20	Enhanced Sensory Response of Quaterthiophene Bearing 1,2,3-Triazole Moiety to Explosives. IEEE Sensors Journal, 2014, 14, 4334-4339.	2.4	11
21	Synthesis of nanoparticles of P3HT and PCBM for optimizing morphology in polymeric solar cells. Applied Surface Science, 2014, 323, 13-18.	3.1	29
22	Performance enhancement of dye-sensitized solar cells by incorporating graphene sheets of various sizes. Applied Surface Science, 2014, 314, 638-641.	3.1	39
23	Synthesis of a self organizable curcumin derivative and investigation of its interaction with metals in 100% aqueous media. Tetrahedron, 2014, 70, 991-995.	1.0	20
24	SU-E-CAMPUS-I-01: Nanometric Organic Photovoltaic Thin Film X-Ray Detectors for Clinical KVP Beams. Medical Physics, 2014, 41, 384-385.	1.6	0
25	Determining the Critical Particle Size to Induce Enhanced Emission in Aggregates of a Highly Twisted Triarylamine. ChemPhysChem, 2013, 14, 3682-3686.	1.0	5
26	Sensitive Detection of Nitroaromatics With Colloidal Conjugated Polymer Nanoparticles. IEEE Sensors Journal, 2013, 13, 2329-2333.	2.4	11
27	Fabrication of Polymeric Visual Decoys for the Male Emerald Ash Borer (Agrilus planipennis). Journal of Bionic Engineering, 2013, 10, 129-138.	2.7	15
28	A straightforward route to electron transporting conjugated polymers. Journal of Materials Chemistry, 2012, 22, 16091.	6.7	10
29	Techniques for characterization of charge carrier mobility in organic semiconductors. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 1130-1144.	2.4	137
30	Strong two-photon-induced fluorescence from a highly soluble polythiophene. Optics Communications, 2011, 284, 3612-3614.	1.0	12
31	Conjugated Polymer:TiO2 Nanocomposite Solar Cells Based on P3HT Nanoparticles. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	0
32	Investigation of QCM Sensors with Azobenzene Functionalized Coatings for the Detection of Nitroaromatics. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 1031-1037.	1.2	10
33	Sensory Response and Two-Photon-Fluorescence Study of Regioregular Polythiophene Nanoparticles. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 1049-1054.	1.2	2
34	Biocatalytic Synthesis of Two-Photon Active Resveratrol Oligomer. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 1061-1066.	1.2	4
35	Horseradish Peroxidase Catalyzed Synthesis of Polycardanol Microcapsules. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 1004-1008.	1.2	3
36	Synthesis and Characterization of a Thiophene Copolymer for Photovoltaic Application. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 1044-1048.	1.2	1

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37	Amphiphilic Copolymers having Saturated and Unsaturated Aliphatic Side Chains as Nano Carriers for Drug Delivery Applications. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 1009-1015.	1.2	3
38	Soybean Peroxidase Catalyzed Enzymatic Synthesis of Pyrrole/EDOT Copolymers. Macromolecular Chemistry and Physics, 2010, 211, 1610-1617.	1.1	19
39	Fabrication of Dye-sensitized Solar Cells and Fluorescence Quenching Study Using Thiophene Based Copolymers. Journal of Macromolecular Science - Pure and Applied Chemistry, 2010, 47, 1180-1183.	1.2	16
40	Detection of Explosive Vapors by Surface Acoustic Wave Sensors Containing Novel Siloxane Based Coatings. Journal of Macromolecular Science - Pure and Applied Chemistry, 2010, 47, 1172-1175.	1.2	21
41	Self-doped carboxylated polyaniline: effect of hydrogen bonding on the doping of polymers. Macromolecular Research, 2009, 17, 631-637.	1.0	14
42	Synthesis and properties of water soluble single-walled carbon nanotube graft ionic polyacetylene nanocomposites. Polymer Composites, 2009, 30, 1817-1824.	2.3	16
43	Stilbene-Based Fluorescent Sensor for Detection of Organophosphorus Warfare Nerve Agents. Journal of Macromolecular Science - Pure and Applied Chemistry, 2009, 46, 1217-1222.	1.2	10
44	A Simple Technique for Submicron Scale Patterning of Silver Using Visible Light Interference. Journal of Macromolecular Science - Pure and Applied Chemistry, 2008, 45, 963-966.	1.2	2
45	Detection of Explosives using nanofibrous membranes. , 2008, , .		1
46	Fabrication of TiO <sub>2</sub> Grating with Composites of Azobenzene Polymer and TiO <sub>2</sub> Nanoparticles. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 1329-1332.	1.2	2
47	Biosynthesis of Liquid Crystalline Azo-Polyesters. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 1245-1248.	1.2	3
48	Biocatalysis for Material Science and Drug Discoveries. Materials Research Society Symposia Proceedings, 2007, 1065, 1.	0.1	0
49	Synthesis and Characterization of a Ruthenium(II) Complex for Photovoltaic Cells. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 1255-1260.	1.2	3
50	Fabrication of Gold Nano-Structures with Azopolymer Templates. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 1299-1303.	1.2	5
51	Determination of Electron and Hole Mobility of Regioregular Poly(3-hexylthiophene) by the Time of Flight Method. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 1261-1264.	1.2	32
52	Template-Assisted Synthesis of Self-Doped Polyaniline: Morphological Effects of Templates on the Conductivity. Macromolecular Rapid Communications, 2007, 28, 1356-1360.	2.0	7
53	Synthesis and Modeling of Acridine Dyes as Potential Photosensitizers for Dye-Sensitized Photovoltaic Applications. Journal of Macromolecular Science - Pure and Applied Chemistry, 2006, 43, 1907-1922.	1.2	24
54	Formation mechanism of surface relief structures on amorphous azopolymer films. Physical Review B, 2006, 73, .	1.1	49

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55	Synthesis and Properties of Self-Doped Polyaniline with Polycationic Templates via Biocatalysis. Journal of Macromolecular Science - Pure and Applied Chemistry, 2006, 43, 2007-2018.	1.2	8
56	Synthesis of Main-Chain Liquid-Crystalline Polyesters Containing Diphenyl Mesogens by Chemo-Enzymatic Route. Journal of Macromolecular Science - Pure and Applied Chemistry, 2006, 43, 1983-1990.	1.2	1
57	Hydrophobic barrier: Molecular self-assembly of amphiphilic polyacetylenes within aluminosilicate nanoplatelets. Journal of Membrane Science, 2006, 275, 12-16.	4.1	15
58	Biocatalytic Synthesis of Multi-Block Copolymer Composed of Poly(tetrahydrofuran) and Poly(ethylene oxide). Journal of Macromolecular Science - Pure and Applied Chemistry, 2006, 43, 1975-1981.	1.2	8
59	Response to "Comment on "Enhancing the inscription rate of surface relief gratings with an incoherent assisting light beam" [Appl. Phys. Lett. 86, 146101 (2005)]. Applied Physics Letters, 2005, 86, 146102.		1
60	Biocatalytic Synthesis of Water-Soluble Oligo(catechins). Journal of Macromolecular Science - Pure and Applied Chemistry, 2005, 42, 1547-1554.	1.2	21
61	Synthesis of Amphiphilic Guanlylated Polymers as Potential Gene Delivery Carriers. Journal of Macromolecular Science - Pure and Applied Chemistry, 2004, 41, 1459-1466.	1.2	6
62	Enhancing the inscription rate of surface relief gratings with an incoherent assisting light beam. Applied Physics Letters, 2004, 84, 4517-4519.	1.5	25
63	Cross-Linked Multilayer Polymer-Clay Nanocomposites and Permeability Properties. Journal of Macromolecular Science - Pure and Applied Chemistry, 2004, 41, 1401-1410.	1.2	29
64	Organic photosensitizers with catechol groups for dye-sensitized photovoltaics. Journal of Photochemistry and Photobiology A: Chemistry, 2004, 168, 191-196.	2.0	59
65	Conformation of Azobenzene-Modified Poly(L-Glutamate) (AZOPLGA) in Thin Films: Solid State NMR Studies. Journal of Macromolecular Science - Pure and Applied Chemistry, 2004, 41, 1359-1368.	1.2	1
66	Polybutadiene Modified Polyaniline Microparticles. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 1383-1396.	1.2	6
67	Mono- and Dinuclear Ruthenium Complexes for Nanocrystalline TiO <sub>2</sub> Based Dye-Sensitized Photovoltaics. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 1317-1325.	1.2	9
68	Synthesis and Characterization of Fluorescent Cellulose. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 1275-1282.	1.2	9
69	Candida antarctica Lipase B Catalyzed Copolymerizations of Non-proteinogenic Amino Acids and Poly(Ethylene Glycol) to Generate Novel Functionalized Polyesters. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 1283-1293.	1.2	10
70	Molecular Assembly by Sequential Ionic Adsorption of Nanocrystalline TiO <sub>2</sub> and a Conjugated Polymer. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 1307-1316.	1.2	10
71	A New Approach to Catalyze Template Polymerization of Aniline Using Electrostatically Multilayered Hematin Assemblies. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 1335-1346.	1.2	8
72	Peroxidase-Catalyzed Polymerization of 1-Hydroxypyrene. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 1407-1414.	1.2	6

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73	Effect of Temperature on the Enzymatic Polymerization of 4-Propylphenol: An In Situ <sup>1</sup> H-NMR Study. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 1423-1431.	1.2	3
74	SYNTHESIS AND ELECTROSPINNING OF A NOVEL FLUORESCENT POLYMER PMMA-PM FOR QUENCHING-BASED OPTICAL SENSING. Journal of Macromolecular Science - Pure and Applied Chemistry, 2002, 39, 1241-1249.	1.2	13
75	CHEMO-ENZYMATIC SYNTHESIS AND CHARACTERIZATION OF NOVEL FUNCTIONALIZED AMPHIPHILIC POLYMERS. Journal of Macromolecular Science - Pure and Applied Chemistry, 2002, 39, 1137-1149.	1.2	32
76	CARBOXYLATED POLYTHIOPHENES: POLYMER BIOSENSORS IN LIQUID AND SOLID STATES*. Journal of Macromolecular Science - Pure and Applied Chemistry, 2002, 39, 1127-1136.	1.2	11
77	Voltage tunable multicolor light emitting diodes based on a dye-doped polythiophene derivative. Synthetic Metals, 2002, 126, 283-288.	2.1	18
78	Probing the electronic structure of a conjugated polymer through fifth-order electroabsorption spectroscopy. Optics Communications, 2002, 201, 197-206.	1.0	6
79	ENZYMATIC SYNTHESIS OF MOLECULAR COMPLEXES OF POLYANILINE WITH DNA AND SYNTHETIC OLIGONUCLEOTIDES: THERMAL AND MORPHOLOGICAL CHARACTERIZATION. Journal of Macromolecular Science - Pure and Applied Chemistry, 2001, 38, 1519-1537.	1.2	23
80	INVESTIGATION OF BIREFRINGENCE AND SURFACE RELIEF GRATING FORMATION IN AZOPOLYMER FILMS. Journal of Macromolecular Science - Pure and Applied Chemistry, 2001, 38, 1445-1462.	1.2	11
81	CHEMOENZYMATIC FUNCTIONALIZATION OF RIBONUCLEIC ACID WITH AZOBENZENE CHROMOPHORES. Journal of Macromolecular Science - Pure and Applied Chemistry, 2001, 38, 1383-1392.	1.2	6
82	ENZYMATIC SYNTHESIS OF POLY(HYDROXYSTILBENE)S. A NEW CLASS OF LUMINESCENT DYE. Journal of Macromolecular Science - Pure and Applied Chemistry, 2001, 38, 1463-1471.	1.2	3
83	Holographic fabrication of polarization selective diffractive optical elements on azopolymer film. Polymers for Advanced Technologies, 2000, 11, 570-574.	1.6	19
84	Bacteriorhodopsin Thin-Film Assemblies—Immobilization, Properties, and Applications. Advanced Materials, 1999, 11, 435-446.	11.1	95
85	Bacteriorhodopsin Thin-Film Assemblies—Immobilization, Properties, and Applications. , 1999, 11, 435.		1
86	Synthesis and self-assembled multilayer thin film formation of water-soluble conjugated aromatic polyimines. Macromolecular Chemistry and Physics, 1998, 199, 1445-1450.	1.1	20
87	Photo-fabrication of surface relief gratings on polymer films. Macromolecular Symposia, 1997, 116, 127-134.	0.4	11
88	Optical Properties of Distyrylbenzene Chromophores and their Segmented Copolymers. Materials Research Society Symposia Proceedings, 1997, 488, 533.	0.1	1
89	Characterizing the NLO Chromophore Orientation of Polymeric Film by Electroabsorption Spectroscopy. Materials Research Society Symposia Proceedings, 1997, 488, 801.	0.1	1
90	Enzymatic Polymerization of Phenolic Biomonomers Derived from Cashew Nut Shell Liquid. Journal of Macromolecular Science - Pure and Applied Chemistry, 1997, 34, 665-674.	1.2	13

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91	Synthesis and optical properties of polyureas with azoaromatic groups in the main chain. <i>Macromolecular Chemistry and Physics</i> , 1997, 198, 2279-2289.	1.1	49
92	Water soluble, conjugated main chain azo polymer: Synthesis and characterization. <i>Macromolecular Rapid Communications</i> , 1996, 17, 853-857.	2.0	6
93	Biochemical synthesis of water soluble polyanilines: Poly(p-aminobenzoic acid). <i>Macromolecular Rapid Communications</i> , 1996, 17, 859-863.	2.0	42
94	Design and Synthesis of Interpenetrating Polymer Networks for Second-order Nonlinear Optics. <i>Polymers for Advanced Technologies</i> , 1996, 7, 303-308.	1.6	5
95	New Strategies for the Fabrication of Enzyme Electrodes. <i>Materials Research Society Symposia Proceedings</i> , 1995, 414, 119.	0.1	0
96	Multilayer Enzyme Assembly for the Development of a Novel Fiber Optic Biosensor. <i>Materials Research Society Symposia Proceedings</i> , 1995, 414, 125.	0.1	0
97	Chemiluminescence-based inhibition kinetics of alkaline phosphatase in the development of a pesticide biosensor.. <i>Biotechnology Progress</i> , 1995, 11, 699-703.	1.3	21
98	Molecular assembly of proteins and conjugated polymers: Toward development of biosensors. <i>Biotechnology and Bioengineering</i> , 1995, 45, 116-121.	1.7	50
99	Polyimide/Norganic Composite - Interpenetrating Polymer Network For Stable Second-Order Nonlinear Optics. <i>Materials Research Society Symposia Proceedings</i> , 1993, 328, 541.	0.1	1
100	Investigation of Second Harmonic Generation in MOCVD Grown Barium Titanate Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 1993, 335, 87.	0.1	1
101	Novel photo-crosslinked nonlinear optical polymers. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1991, 12, 63-68.	1.1	78
102	New photocrosslinkable polymers for second-order nonlinear optical processes. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1991, 12, 607-612.	1.1	59
103	Optimized Processing Condition for a Photocrosslinkable Stable Nonlinear Optical Polymer. <i>Materials Research Society Symposia Proceedings</i> , 1990, 214, 79.	0.1	1