

# 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	Unraveling the mechanism of thermal and thermo-oxidative degradation of tannic acid. <i>Thermochimica Acta</i> , 2015, 605, 77-85.	1.2	138
2	Techniques for characterization of charge carrier mobility in organic semiconductors. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 1130-1144.	2.4	137
3	Bacteriorhodopsin Thin-Film Assemblies' Immobilization, Properties, and Applications. <i>Advanced Materials</i> , 1999, 11, 435-446.	11.1	95
4	Novel photo-crosslinked nonlinear optical polymers. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1991, 12, 63-68.	1.1	78
5	Fire resistant polyphenols based on chemical modification of bio-derived tannic acid. <i>Polymer Degradation and Stability</i> , 2018, 153, 227-243.	2.7	68
6	New photocrosslinkable polymers for second-order nonlinear optical processes. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1991, 12, 607-612.	1.1	59
7	Organic photosensitizers with catechol groups for dye-sensitized photovoltaics. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2004, 168, 191-196.	2.0	59
8	Molecular assembly of proteins and conjugated polymers: Toward development of biosensors. <i>Biotechnology and Bioengineering</i> , 1995, 45, 116-121.	1.7	50
9	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
10	Formation mechanism of surface relief structures on amorphous azopolymer films. <i>Physical Review B</i> , 2006, 73, .	1.1	49
11	Covalent functionalization of cellulose in cotton and a nylon-cotton blend with phytic acid for flame retardant properties. <i>Cellulose</i> , 2020, 27, 11-24.	2.4	44
12	Bio-Based Flame-Retardant Coatings Based on the Synergistic Combination of Tannic Acid and Phytic Acid for Nylon-Cotton Blends. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 61620-61628.	4.0	44
13	Biochemical synthesis of water soluble polyanilines: Poly(p-aminobenzoic acid). <i>Macromolecular Rapid Communications</i> , 1996, 17, 859-863.	2.0	42
14	Performance enhancement of dye-sensitized solar cells by incorporating graphene sheets of various sizes. <i>Applied Surface Science</i> , 2014, 314, 638-641.	3.1	39
15	CHEMO-ENZYMATIC SYNTHESIS AND CHARACTERIZATION OF NOVEL FUNCTIONALIZED AMPHIPHILIC POLYMERS. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2002, 39, 1137-1149.	1.2	32
16	Determination of Electron and Hole Mobility of Regioregular Poly(3-hexylthiophene) by the Time of Flight Method. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2007, 44, 1261-1264.	1.2	32
17	Cross-linked Multilayer Polymer-Clay Nanocomposites and Permeability Properties. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2004, 41, 1401-1410.	1.2	29
18	Synthesis of nanoparticles of P3HT and PCBM for optimizing morphology in polymeric solar cells. <i>Applied Surface Science</i> , 2014, 323, 13-18.	3.1	29

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19	Enhancing the inscription rate of surface relief gratings with an incoherent assisting light beam. <i>Applied Physics Letters</i> , 2004, 84, 4517-4519.	1.5	25
20	Synthesis and Modeling of Acridine Dyes as Potential Photosensitizers for Dye-Sensitized Photovoltaic Applications. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2006, 43, 1907-1922.	1.2	24
21	ENZYMATIC SYNTHESIS OF MOLECULAR COMPLEXES OF POLYANILINE WITH DNA AND SYNTHETIC OLIGONUCLEOTIDES: THERMAL AND MORPHOLOGICAL CHARACTERIZATION. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2001, 38, 1519-1537.	1.2	23
22	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
23	Biocatalytic Synthesis of Water-Soluble Oligo(catechins). <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2005, 42, 1547-1554.	1.2	21
24	Detection of Explosive Vapors by Surface Acoustic Wave Sensors Containing Novel Siloxane Based Coatings. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2010, 47, 1172-1175.	1.2	21
25	Designing Supertough and Ulstretchable Liquid Metal-Embedded Natural Rubber Composites for Soft-Matter Engineering. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 15610-15620.	4.0	21
26	Synthesis and self-assembled multilayer thin film formation of water-soluble conjugated aromatic polyimines. <i>Macromolecular Chemistry and Physics</i> , 1998, 199, 1445-1450.	1.1	20
27	Synthesis of a self-organizable curcumin derivative and investigation of its interaction with metals in 100% aqueous media. <i>Tetrahedron</i> , 2014, 70, 991-995.	1.0	20
28	Holographic fabrication of polarization selective diffractive optical elements on azopolymer film. <i>Polymers for Advanced Technologies</i> , 2000, 11, 570-574.	1.6	19
29	Soybean Peroxidase Catalyzed Enzymatic Synthesis of Pyrrole/EDOT Copolymers. <i>Macromolecular Chemistry and Physics</i> , 2010, 211, 1610-1617.	1.1	19
30	Voltage tunable multicolor light emitting diodes based on a dye-doped polythiophene derivative. <i>Synthetic Metals</i> , 2002, 126, 283-288.	2.1	18
31	Layer-by-layer assembly of halogen-free polymeric materials on nylon/cotton blend for flame retardant applications. <i>Fire and Materials</i> , 2016, 40, 206-218.	0.9	17
32	Synthesis and properties of water soluble single-walled carbon nanotube graft ionic polyacetylene nanocomposites. <i>Polymer Composites</i> , 2009, 30, 1817-1824.	2.3	16
33	Fabrication of Dye-sensitized Solar Cells and Fluorescence Quenching Study Using Thiophene Based Copolymers. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2010, 47, 1180-1183.	1.2	16
34	Hydrophobic barrier: Molecular self-assembly of amphiphilic polyacetylenes within aluminosilicate nanoplatelets. <i>Journal of Membrane Science</i> , 2006, 275, 12-16.	4.1	15
35	Fabrication of Polymeric Visual Decoys for the Male Emerald Ash Borer ( <i>Agrilus planipennis</i> ). <i>Journal of Bionic Engineering</i> , 2013, 10, 129-138.	2.7	15
36	Facile microwave assisted flame retardant treatment for cotton fabric using a biobased industrial byproduct: phytic acid. <i>Cellulose</i> , 2021, 28, 10655-10674.	2.4	15

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37	Self-doped carboxylated polyaniline: effect of hydrogen bonding on the doping of polymers. <i>Macromolecular Research</i> , 2009, 17, 631-637.	1.0	14
38	Enzymatic Polymerization of Phenolic Biomonomers Derived from Cashew Nut Shell Liquid. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 1997, 34, 665-674.	1.2	13
39	SYNTHESIS AND ELECTROSPINNING OF A NOVEL FLUORESCENT POLYMER PMMA-PM FOR QUENCHING-BASED OPTICAL SENSING. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2002, 39, 1241-1249.	1.2	13
40	Strong two-photon-induced fluorescence from a highly soluble polythiophene. <i>Optics Communications</i> , 2011, 284, 3612-3614.	1.0	12
41	Biocatalytic Synthesis of Fluorescent Conjugated Indole Oligomers. <i>Bioengineering</i> , 2014, 1, 246-259.	1.6	12
42	Photo-fabrication of surface relief gratings on polymer films. <i>Macromolecular Symposia</i> , 1997, 116, 127-134.	0.4	11
43	INVESTIGATION OF BIREFRINGENCE AND SURFACE RELIEF GRATING FORMATION IN AZOPOLYMER FILMS. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2001, 38, 1445-1462.	1.2	11
44	CARBOXYLATED POLYTHIOPHENES: POLYMER BIOSENSORS IN LIQUID AND SOLID STATES*. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2002, 39, 1127-1136.	1.2	11
45	Sensitive Detection of Nitroaromatics With Colloidal Conjugated Polymer Nanoparticles. <i>IEEE Sensors Journal</i> , 2013, 13, 2329-2333.	2.4	11
46	Enhanced Sensory Response of Quaterthiophene Bearing 1,2,3-Triazole Moiety to Explosives. <i>IEEE Sensors Journal</i> , 2014, 14, 4334-4339.	2.4	11
47	Wearable Thermoelectric Devices Based on Three-Dimensional PEDOT:Tosylate/Cul Paper Composites. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 46919-46926.	4.0	11
48	Candida antarctica Lipase B Catalyzed Copolymerizations of Non-proteinogenic Amino Acids and Poly(Ethylene Glycol) to Generate Novel Functionalized Polyesters. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2003, 40, 1283-1293.	1.2	10
49	Molecular Assembly by Sequential Ionic Adsorption of Nanocrystalline TiO <sub>2</sub> and a Conjugated Polymer. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2003, 40, 1307-1316.	1.2	10
50	Stilbene-Based Fluorescent Sensor for Detection of Organophosphorus Warfare Nerve Agents. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2009, 46, 1217-1222.	1.2	10
51	Investigation of QCM Sensors with Azobenzene Functionalized Coatings for the Detection of Nitroaromatics. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2011, 48, 1031-1037.	1.2	10
52	A straightforward route to electron transporting conjugated polymers. <i>Journal of Materials Chemistry</i> , 2012, 22, 16091.	6.7	10
53	Mono- and Dinuclear Ruthenium Complexes for Nanocrystalline TiO <sub>2</sub> Based Dye-Sensitized Photovoltaics. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2003, 40, 1317-1325.	1.2	9
54	Synthesis and Characterization of Fluorescent Cellulose. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2003, 40, 1275-1282.	1.2	9

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55	Technical Note: Nanometric organic photovoltaic thin film detectors for dose monitoring in diagnostic x-ray imaging. <i>Medical Physics</i> , 2015, 42, 4027-4032.	1.6	9
56	A New Approach to Catalyze Template Polymerization of Aniline Using Electrostatically Multilayered Hematin Assemblies. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2003, 40, 1335-1346.	1.2	8
57	Synthesis and Properties of Self-Doped Polyaniline with Polycationic Templates via Biocatalysis. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2006, 43, 2007-2018.	1.2	8
58	Biocatalytic Synthesis of Multi-Block Copolymer Composed of Poly(tetrahydrofuran) and Poly(ethylene oxide). <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2006, 43, 1975-1981.	1.2	8
59	Template-Assisted Synthesis of Self-Doped Polyaniline: Morphological Effects of Templates on the Conductivity. <i>Macromolecular Rapid Communications</i> , 2007, 28, 1356-1360.	2.0	7
60	Synthesis and Sensing Applications of Fluorescent 3-Cinnamoyl Coumarins. <i>Sensors</i> , 2015, 15, 31987-31998.	2.1	7
61	Unusual role of labile phenolics in imparting flame resistance to polyamide. <i>Polymer Degradation and Stability</i> , 2020, 175, 109103.	2.7	7
62	Water soluble, conjugated main chain azo polymer: Synthesis and characterization. <i>Macromolecular Rapid Communications</i> , 1996, 17, 853-857.	2.0	6
63	CHEMOENZYMATIC FUNCTIONALIZATION OF RIBONUCLEIC ACID WITH AZOBENZENE CHROMOPHORES. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2001, 38, 1383-1392.	1.2	6
64	Probing the electronic structure of a conjugated polymer through fifth-order electroabsorption spectroscopy. <i>Optics Communications</i> , 2002, 201, 197-206.	1.0	6
65	Polybutadiene Modified Polyaniline Microparticles. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2003, 40, 1383-1396.	1.2	6
66	Peroxidase-Catalyzed Polymerization of 1-Hydroxypyrene. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2003, 40, 1407-1414.	1.2	6
67	Synthesis of Amphiphilic Guanlylated Polymers as Potential Gene Delivery Carriers. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2004, 41, 1459-1466.	1.2	6
68	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
69	Fabrication of Gold Nano-Structures with Azopolymer Templates. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2007, 44, 1299-1303.	1.2	5
70	Determining the Critical Particle Size to Induce Enhanced Emission in Aggregates of a Highly Twisted Triarylamine. <i>ChemPhysChem</i> , 2013, 14, 3682-3686.	1.0	5
71	Environment-Friendly Post-Treatment of PEDOT-Tos Films by Aqueous Vitamin C Solutions for Tuning of Thermoelectric Properties. <i>Journal of Electronic Materials</i> , 2018, 47, 3963-3968.	1.0	5
72	Fluorination of an <i>N,N,N',N'</i> -Tetraphenylbenzidine Derivative as a Dopant-Free Hole-Transporting Material for Moisture-Resistant Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , 2021, 4, 10459-10467.	2.5	5

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73	Biocatalytic Synthesis of Two-Photon Active Resveratrol Oligomer. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 1061-1066.	1.2	4
74	Performance enhancement of fullerene based solar cells upon NIR laser irradiation. RSC Advances, 2015, 5, 48526-48532.	1.7	4
75	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
76	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
77	Biosynthesis of Liquid Crystalline Azo-Polyesters. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 1245-1248.	1.2	3
78	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
79	Horseradish Peroxidase Catalyzed Synthesis of Polycardanol Microcapsules. Journal of Macromolecular Science - Pure and Applied Chemistry, 2011, 48, 1004-1008.	1.2	3
80	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
81	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
82	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
83	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
84	Optimized Processing Condition for a Photocrosslinkable Stable Nonlinear Optical Polymer. Materials Research Society Symposia Proceedings, 1990, 214, 79.	0.1	1
85	Polyimide/Organic Composite - Interpenetrating Polymer Network For Stable Second-Order Nonlinear Optics. Materials Research Society Symposia Proceedings, 1993, 328, 541.	0.1	1
86	Investigation of Second Harmonic Generation in MOCVD Grown Barium Titanate Thin Films. Materials Research Society Symposia Proceedings, 1993, 335, 87.	0.1	1
87	Optical Properties of Distyrylbenzene Chromophores and their Segmented Copolymers. Materials Research Society Symposia Proceedings, 1997, 488, 533.	0.1	1
88	Characterizing the NLO Chromophore Orientation of Polymeric Film by Electroabsorption Spectroscopy. Materials Research Society Symposia Proceedings, 1997, 488, 801.	0.1	1
89	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
90	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

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91	Synthesis of Mainâ€Chain Liquidâ€Crystalline Polyesters Containing Diphenyl Mesogens by Chemoâ€Enzymatic Route. Journal of Macromolecular Science - Pure and Applied Chemistry, 2006, 43, 1983-1990.	1.2	1
92	Detection of Explosives using nanofibrous membranes. , 2008, , .		1
93	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
94	Two-photon active polymeric nanoparticles for high contrast in vitro imaging. RSC Advances, 2014, 4, 1116-1119.	1.7	1
95	Biocatalytic synthesis of unusually photoluminescent oligomers and electrically conducting polymers of 4â€(3â€pyrrolyl)butyric acid. Journal of Applied Polymer Science, 2014, 131, .	1.3	1
96	Effects of Nanoimprinted Structures on the Performance of Organic Solar Cells. Journal of Nanomaterials, 2018, 2018, 1-6.	1.5	1
97	Bacteriorhodopsin Thin-Film Assembliesâ€Immobilization, Properties, and Applications. , 1999, 11, 435.		1
98	New Strategies for the Fabrication of Enzyme Electrodes. Materials Research Society Symposia Proceedings, 1995, 414, 119.	0.1	0
99	Multilayer Enzyme Assembly for the Development of a Novel Fiber Optic Biosensor. Materials Research Society Symposia Proceedings, 1995, 414, 125.	0.1	0
100	Biocatalysis for Material Science and Drug Discoveries. Materials Research Society Symposia Proceedings, 2007, 1065, 1.	0.1	0
101	Conjugated Polymer:TiO2 Nanocomposite Solar Cells Based on P3HT Nanoparticles. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	0
102	Corrigendum to â€Effects of Nanoimprinted Structures on the Performance of Organic Solar Cellsâ€ Journal of Nanomaterials, 2018, 2018, 1-1.	1.5	0
103	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