

Anji Reddy Polu

List of Publications by Year in descending order

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41
papers

2,013
citations

236925

25
h-index

330143

37
g-index

41
all docs

41
docs citations

41
times ranked

2329
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances in MoS ₂ nanostructured materials for energy and environmental applications – A review. <i>Journal of Solid State Chemistry</i> , 2017, 252, 43-71.	2.9	216
2	Synthesis, optimization and applications of ZnO/polymer nanocomposites. <i>Materials Science and Engineering C</i> , 2019, 98, 1210-1240.	7.3	191
3	Ionic liquid doped PEO-based solid polymer electrolytes for lithium-ion polymer batteries. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 7212-7219.	7.1	150
4	Perspectives for solid biopolymer electrolytes in dye sensitized solar cell and battery application. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 65, 1098-1117.	16.4	106
5	Effect of TiO ₂ nanoparticles on structural, thermal, mechanical and ionic conductivity studies of PEO 12 –LiTDI solid polymer electrolyte. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 37, 347-353.	5.8	100
6	Nanocomposite solid polymer electrolytes based on poly(ethylene oxide)/POSS-PEG (n=13.3) hybrid nanoparticles for lithium ion batteries. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 31, 323-329.	5.8	84
7	Fumed SiO ₂ nanoparticle reinforced biopolymer blend nanocomposites with high dielectric constant and low dielectric loss for flexible organic electronics. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	2.6	75
8	Newly developed biodegradable polymer nanocomposites of cellulose acetate and Al ₂ O ₃ nanoparticles with enhanced dielectric performance for embedded passive applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 973-986.	2.2	73
9	Preparation and characterization of pva based solid polymer electrolytes for electrochemical cell applications. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2013, 31, 641-648.	3.8	70
10	Impedance spectroscopy, ionic conductivity and dielectric studies of new Li ⁺ ion conducting polymer blend electrolytes based on biodegradable polymers for solid state battery applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 11410-11424.	2.2	65
11	A study of structural, electrical and electrochemical properties of PVdF-HFP gel polymer electrolyte films for magnesium ion battery applications. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 37, 67-74.	5.8	64
12	AC impedance and dielectric spectroscopic studies of Mg ²⁺ ion conducting PVA-PEG blended polymer electrolytes. <i>Bulletin of Materials Science</i> , 2011, 34, 1063-1067.	1.7	63
13	Impedance Spectroscopy and FTIR Studies of PEG - Based Polymer Electrolytes. <i>E-Journal of Chemistry</i> , 2011, 8, 347-353.	0.5	62
14	Ionic Conductivity and Discharge Characteristic Studies of PVA-Mg(CH ₃ COO) ₂ Solid Polymer Electrolytes. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2013, 62, 76-80.	3.4	62
15	Poly(ethylene oxide)-lithium difluoro(oxalato)borate new solid polymer electrolytes: ion-polymer interaction, structural, thermal, and ionic conductivity studies. <i>Ionics</i> , 2015, 21, 2771-2780.	2.4	62
16	Magnesium ion conducting solid polymer blend electrolyte based on biodegradable polymers and application in solid-state batteries. <i>Ionics</i> , 2015, 21, 125-132.	2.4	59
17	Solution-processed white graphene-reinforced ferroelectric polymer nanocomposites with improved thermal conductivity and dielectric properties for electronic encapsulation. <i>Journal of Polymer Research</i> , 2017, 24, 1.	2.4	59
18	New solid polymer electrolytes (PEO ₂₀ -LiTDI-SN) for lithium batteries: structural, thermal and ionic conductivity studies. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 8548-8554.	2.2	45

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19	The Effects of LiTDI Salt and POSS-PEG ($n=4$) Hybrid Nanoparticles on Crystallinity and Ionic Conductivity of PEO Based Solid Polymer Electrolytes. Science of Advanced Materials, 2016, 8, 931-940.	0.7	45
20	Effect of POSS-PEG hybrid nanoparticles on cycling performance of polyether-LiDFOB based solid polymer electrolytes for all solid-state Li-ion battery applications. Journal of Industrial and Engineering Chemistry, 2017, 45, 68-77.	5.8	43
21	Effect Of Al ₂ O ₃ Ceramic Filler On PEG-based Composite Polymer Electrolytes For Magnesium Batteries. Advanced Materials Letters, 2013, 4, 543-547.	0.6	41
22	Eonomer 200F®: A High-Performance Nanofiller for Polymer Reinforcement—Investigation of the Structure, Morphology and Dielectric Properties of Polyvinyl Alcohol/Eonomer-200F® Nanocomposites for Embedded Capacitor Applications. Journal of Electronic Materials, 2017, 46, 2406-2418.	2.2	35
23	Ionic liquid incorporated nanocomposite polymer electrolytes for rechargeable lithium ion battery: A way to achieve improved electrochemical and interfacial properties. Journal of Industrial and Engineering Chemistry, 2016, 40, 168-176.	5.8	34
24	Preparation and characterization of PEG—Mg(CH ₃ COO) ₂ —CeO ₂ composite polymer electrolytes for battery application. Bulletin of Materials Science, 2014, 37, 309-314.	1.7	28
25	A comprehensive study of chalcogenide quantum dot sensitized solar cells with a new solar cell exceeding 1 V output. Renewable and Sustainable Energy Reviews, 2015, 52, 1083-1092.	16.4	27
26	Conductivity, XRD, and FTIR Studies of New Mg ²⁺ -ion-conducting Solid Polymer Electrolytes: [PEG: Mg(CH ₃ COO) ₂]. Journal of the Korean Physical Society, 2011, 59, 114-118.	0.7	27
27	Effect of zinc salt on transport, structural, and thermal properties of PEG-based polymer electrolytes for battery application. Ionics, 2014, 20, 675-679.	2.4	26
28	Effect of ceramic fillers on polyethylene glycol-based solid polymer electrolytes for solid-state magnesium batteries. High Performance Polymers, 2014, 26, 628-631.	1.8	18
29	Mg²-ion conducting poly(ethylene Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 14 Materials Express, 2014, 4, 79-84.	0.5	15
30	Effect of Organic—Inorganic Hybrid Nanoparticles (POSS—PEG ($n=4$)) on Thermal, Mechanical, and Electrical Properties of PEO-Based Solid Polymer Electrolytes. Advances in Polymer Technology, 2017, 36, 145-151.	1.7	15
31	Effect of TiO ₂ ceramic filler on PEG-based composite polymer electrolytes for magnesium batteries. AIP Conference Proceedings, 2013, , .	0.4	14
32	Ionic Conductivity And Electrochemical Cell Studies Of New Mg ²⁺ -ion Conducting PVA/PEG Based Polymer Blend Electrolytes. Advanced Materials Letters, 2012, 3, 406-409.	0.6	13
33	Ion-Conducting Polymer Electrolyte Based on Poly (Ethylene Glycol) Complexed with Mg(CH ₃ COO) ₂ Application as an Electrochemical Cell. E-Journal of Chemistry, 2012, 9, 869-874.	0.5	10
34	Structural, thermal, and electrochemical studies of biodegradable gel polymer electrolyte for electric double layer capacitor. High Performance Polymers, 2022, 34, 673-682.	1.8	4
35	Electrical performance of soft polymer ionic membranes with mono and multi polymer systems. Karbala International Journal of Modern Science, 2015, 1, 194-199.	1.0	3
36	Improved ion dissociation and amorphous region of PEO based solid polymer electrolyte by incorporating tetracyanoethylene. Materials Today: Proceedings, 2020, , .	1.8	3

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37	AC conductivity and electrochemical studies of PVA/PEG based polymer blend electrolyte films. , 2012, , .		2
38	A Novel Nanocomposite Polymer Electrolyte for Application in Solid State Lithium Ion Battery. , 2018, , .		2
39	Effect of Mixed Glass Former on Ionic Conductivity of Silver Boro Tungstate glass system $x[0.75\text{AgI}:0.25\text{AgCl}]: (1-x) [\text{Ag}_{2}\text{O}-\{\text{B}_{2}\text{O}_{3}:\text{WO}_{3}\}]$. Journal of Physics: Conference Series, 2012, 365, 012034.	0.4	1
40	Development of solid polymer electrolytes based on poly (ethylene oxide) complexed with 2-trifluoromethyl-4, 5-dicyanoimidazole lithium salt and 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide ionic liquid for Li-ion batteries. High Performance Polymers, 0, , 095400832211130.	1.8	1
41	Frequency and Temperature Dependence of Conductivity Studies of New Silver-Calcia-Borate Glass System. , 2011, , .		0