

# Biswajoy Bagchi

## List of Publications by Year in descending order

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49  
papers

1,843  
citations

304368

22  
h-index

264894

42  
g-index

49  
all docs

49  
docs citations

49  
times ranked

1960  
citing authors

#	ARTICLE	IF	CITATIONS
1	Superior performances of in situ synthesized ZnO/PVDF thin film based self-poled piezoelectric nanogenerator and self-charged photo-power bank with high durability. <i>Nano Energy</i> , 2018, 44, 456-467.	8.2	202
2	Enhancement of $\hat{\Gamma}^2$ phase crystallization and dielectric behavior of kaolinite/halloysite modified poly(vinylidene fluoride) thin films. <i>Applied Clay Science</i> , 2014, 99, 149-159.	2.6	125
3	In situ synthesis and antibacterial activity of copper nanoparticle loaded natural montmorillonite clay based on contact inhibition and ion release. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 108, 358-365.	2.5	104
4	Effect of in situ synthesized $\text{Fe}_{2}\text{O}_{3}$ and $\text{Co}_{3}\text{O}_{4}$ nanoparticles on electroactive $\hat{\Gamma}^2$ phase crystallization and dielectric properties of poly(vinylidene fluoride) thin films. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 1368-1378.	1.3	104
5	Biowaste crab shell-extracted chitin nanofiber-based superior piezoelectric nanogenerator. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13848-13858.	5.2	95
6	$\text{Er}^{3+}/\text{Fe}^{3+}$ Stimulated Electroactive, Visible Light Emitting, and High Dielectric Flexible PVDF Film Based Piezoelectric Nanogenerators: A Simple and Superior Self-Powered Energy Harvester with Remarkable Power Density. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 23048-23059.	4.0	90
7	Re-usable self-poled piezoelectric/piezocatalytic films with exceptional energy harvesting and water remediation capability. <i>Nano Energy</i> , 2020, 78, 105339.	8.2	90
8	In situ synthesis of $\text{Ni}(\text{OH})_{2}$ nanobelt modified electroactive poly(vinylidene fluoride) thin films: remarkable improvement in dielectric properties. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 13082-13091.	1.3	83
9	The role of cerium( $\text{III}$ )/yttrium( $\text{III}$ ) nitrate hexahydrate salts on electroactive $\hat{\Gamma}^2$ phase nucleation and dielectric properties of poly(vinylidene fluoride) thin films. <i>RSC Advances</i> , 2015, 5, 28487-28496.	1.7	79
10	Enhanced electroactive $\hat{\Gamma}^2$ -phase nucleation and dielectric properties of PVdF-HFP thin films influenced by montmorillonite and $\text{Ni}(\text{OH})_{2}$ nanoparticle modified montmorillonite. <i>RSC Advances</i> , 2016, 6, 21881-21894.	1.7	62
11	Antimicrobial efficacy and biocompatibility study of copper nanoparticle adsorbed mullite aggregates. <i>Materials Science and Engineering C</i> , 2012, 32, 1897-1905.	3.8	61
12	Nanostructured zirconia thin film fabricated by electrophoretic deposition technique. <i>Journal of Alloys and Compounds</i> , 2017, 693, 1220-1230.	2.8	49
13	Nanocrystalline Mullite Synthesis at a Low Temperature: Effect of Copper Ions. <i>Journal of the American Ceramic Society</i> , 2009, 92, 748-751.	1.9	46
14	Highly Efficient and Durable Piezoelectric Nanogenerator and Photo-power cell Based on CTAB Modified Montmorillonite Incorporated PVDF Film. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4801-4813.	3.2	46
15	Electroactive and High Dielectric Folic Acid/PVDF Composite Film Rooted Simplistic Organic Photovoltaic Self-Charging Energy Storage Cell with Superior Energy Density and Storage Capability. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 24198-24209.	4.0	45
16	Antimicrobial and biocompatible fluorescent hydroxyapatite-chitosan nanocomposite films for biomedical applications. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 171, 300-307.	2.5	45
17	Electrical and dielectric properties of sol-gel derived mullite doped with transition metals. <i>Materials Chemistry and Physics</i> , 2013, 138, 375-383.	2.0	43
18	Improvement of electroactive $\hat{\Gamma}^2$ phase nucleation and dielectric properties of $\text{WO}_{3}\cdot\text{H}_{2}\text{O}$ nanoparticle loaded poly(vinylidene fluoride) thin films. <i>RSC Advances</i> , 2015, 5, 62819-62827.	1.7	41

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19	Mechanical, dielectric and photoluminescence properties of alumina-mullite composite derived from natural Ganges clay. <i>Applied Clay Science</i> , 2015, 114, 349-358.	2.6	36
20	Improving the thermal stability, electroactive $\hat{I}^2$ phase crystallization and dielectric constant of NiO nanoparticle/Ca-NiO nanocomposite embedded flexible poly(vinylidene fluoride) thin films. <i>RSC Advances</i> , 2016, 6, 26288-26299.	1.7	33
21	Mullite phase enhancement in Indian kaolins by addition of vanadium pentoxide. <i>Applied Clay Science</i> , 2010, 47, 409-413.	2.6	26
22	A facile vacuum assisted synthesis of nanoparticle impregnated hydroxyapatite composites having excellent antimicrobial properties and biocompatibility. <i>Ceramics International</i> , 2018, 44, 1066-1077.	2.3	25
23	4-Chlorochoalcone-Assisted Electroactive Polyvinylidene Fluoride Film-Based Energy Storage System Capable of Self-Charging Under Light. <i>Energy Technology</i> , 2017, 5, 2205-2215.	1.8	24
24	Abrupt change of dielectric properties in mullite due to titanium and strontium incorporation by sol-gel method. <i>Journal of Advanced Ceramics</i> , 2014, 3, 278-286.	8.9	21
25	Development of transition metal oxide-kaolin composite pigments for potential application in paint systems. <i>Applied Clay Science</i> , 2015, 107, 205-212.	2.6	21
26	Photo-Rechargeable Organic-Inorganic Dye-Integrated Polymeric Power Cell with Superior Performance and Durability. <i>Langmuir</i> , 2019, 35, 6346-6355.	1.6	20
27	In situ synthesis of environmentally benign montmorillonite supported composites of Au/Ag nanoparticles and their catalytic activity in the reduction of p-nitrophenol. <i>RSC Advances</i> , 2014, 4, 61114-61123.	1.7	18
28	Sol-gel synthesis of transition-metal ion conjugated alumina-rich mullite nanocomposites with potential mechanical, dielectric and photoluminescence properties. <i>RSC Advances</i> , 2015, 5, 104299-104313.	1.7	17
29	Synthesis of eucalyptus/tea tree oil absorbed biphasic calcium phosphate-PVDF polymer nanocomposite films: a surface active antimicrobial system for biomedical application. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16775-16785.	1.3	17
30	Dielectric and magnetic properties of sol-gel derived mullite-iron nanocomposite. <i>Journal of Electroceramics</i> , 2012, 28, 261-267.	0.8	16
31	A simple sol-gel approach to synthesize nanocrystalline 8 mol% yttria stabilized zirconia from metal-chelate precursors: Microstructural evolution and conductivity studies. <i>Journal of Alloys and Compounds</i> , 2015, 647, 620-626.	2.8	16
32	Portable Self-Powered Piezoelectric Nanogenerator and Self-Charging Photo-Power Pack Using In Situ Formed Multifunctional Calcium Phosphate Nanorod-Doped PVDF Films. <i>Langmuir</i> , 2019, 35, 17016-17026.	1.6	16
33	Effect of size of fly ash particle on enhancement of mullite content and glass formation. <i>Bulletin of Materials Science</i> , 2011, 34, 1663-1670.	0.8	15
34	Dielectric switching above a critical frequency occurred in iron mullite composites used as an electronic substrate. <i>Journal of Materials Science: Materials in Electronics</i> , 2014, 25, 5218-5225.	1.1	14
35	Effect of nickel and cobalt ions on low temperature synthesis of mullite by sol-gel technique. <i>Journal of Sol-Gel Science and Technology</i> , 2010, 55, 135-141.	1.1	13
36	In situ synthesized electroactive and large dielectric BaF <sub>2</sub> /PVDF nanocomposite film for superior and highly durable self-charged hybrid photo-power cell. <i>Energy Conversion and Management</i> , 2018, 171, 1083-1092.	4.4	12

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37	Copper nanowire embedded hypromellose: An antibacterial nanocomposite film. Journal of Colloid and Interface Science, 2022, 608, 30-39.	5.0	11
38	Essential oil impregnated luminescent hydroxyapatite: Antibacterial and cytotoxicity studies. Materials Science and Engineering C, 2020, 116, 111190.	3.8	10
39	Physico-chemical property-driven dielectric behaviour and catalytic activity of nanocrystalline mullite synthesized from monophasic precursor gel. Journal of Sol-Gel Science and Technology, 2016, 80, 769-782.	1.1	9
40	A Comparative Study of Densification of Solâ€Gela€D Derived Nanoâ€Mullite due to the Influence of Iron, Nickel and Copper Ions. International Journal of Applied Ceramic Technology, 2014, 11, 1054-1060.	1.1	6
41	Copper Ion Doped Mullite Composite in Poly (vinylidene Fluoride) Matrix: Effect on Microstructure, Phase Behavior and Electrical Properties. Journal of Research Updates in Polymer Science, 2014, 3, 157-169.	0.3	6
42	The influence of cobalt acetate on sol-gel derived mullite densification behaviour. Journal Wuhan University of Technology, Materials Science Edition, 2012, 27, 836-840.	0.4	5
43	Effect of vanadic anhydride and copper oxide on the development of hard porcelain composite and its antibacterial activity. Journal of Asian Ceramic Societies, 2014, 2, 297-304.	1.0	5
44	Salt-melt synthesis of B <sub>2</sub> O <sub>3</sub> , P <sub>2</sub> O <sub>5</sub> and V <sub>2</sub> O <sub>5</sub> modified high-alumina mullite nanocomposites with promising photoluminescence properties. Materials Research Express, 2017, 4, 105005.	0.8	5
45	In situ synthesized SrF <sub>2</sub> /polyvinylidene fluoride nanocomposite film based photo-power cell with imperious performance and stability. Electrochimica Acta, 2018, 282, 194-204.	2.6	5
46	Self-charging photo-power cell based on a novel polymer nanocomposite film with high energy density and durability. Polymer Journal, 2019, 51, 1197-1209.	1.3	4
47	Synthesis of nanocrystalline photoluminescent mullite using sacrificial cotton wool and filter paper templates. Journal of the American Ceramic Society, 2017, 100, 4836-4847.	1.9	3
48	A study on the phytotoxicity of nano mullite and metal-amended nano mullite on mung bean plants. Journal of Environmental Monitoring, 2011, 13, 1709.	2.1	2
49	Photo-charging polymeric sodium-ion cell based on YSZ/PVDF film. Applied Physics Letters, 2019, 115, .	1.5	2