

Sati N Bhattacharya

List of Publications by Year in descending order

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128
papers

3,480
citations

109137

35
h-index

174990

52
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134
all docs

134
docs citations

134
times ranked

3401
citing authors

#	ARTICLE	IF	CITATIONS
1	Morphology, electromagnetic properties and electromagnetic interference shielding performance of poly lactide/graphene nanoplatelet nanocomposites. <i>Materials and Design</i> , 2016, 95, 119-126.	3.3	162
2	Properties of linear poly(lactic acid)/polyethylene glycol blends. <i>Polymer Engineering and Science</i> , 2012, 52, 108-116.	1.5	150
3	Dielectric properties and electromagnetic interference shielding effectiveness of graphene-based biodegradable nanocomposites. <i>Materials and Design</i> , 2016, 109, 68-78.	3.3	112
4	Morphological and rheological characterization of multi-walled carbon nanotube/PLA/PBAT blend nanocomposites. <i>Polymer Bulletin</i> , 2009, 63, 125-134.	1.7	91
5	Shear and extensional rheology of EVA/layered silicate-nanocomposites. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2005, 128, 116-125.	1.0	90
6	Melt strength of polypropylene: Its relevance to thermoforming. <i>Polymer Engineering and Science</i> , 1998, 38, 1915-1923.	1.5	86
7	Effect of vinyl acetate content and silicate loading on EVA nanocomposites under shear and extensional flow. <i>Rheologica Acta</i> , 2004, 43, 99-108.	1.1	80
8	Clay intercalation and influence on crystallinity of EVA-based clay nanocomposites. <i>Thermochimica Acta</i> , 2005, 433, 187-195.	1.2	78
9	Dispersion study of nanofibrillated cellulose based poly(butylene adipate-co-terephthalate) composites. <i>Carbohydrate Polymers</i> , 2014, 102, 537-542.	5.1	73
10	Improved dispersion of cellulose microcrystals in polylactic acid (PLA) based composites applying surface acetylation. <i>Chemical Engineering Science</i> , 2013, 101, 655-662.	1.9	70
11	Biodegradation of oxo-biodegradable polyethylene. <i>Journal of Applied Polymer Science</i> , 2009, 111, 1426-1432.	1.3	68
12	Near-infrared reflective properties of perylene derivatives. <i>Dyes and Pigments</i> , 2012, 92, 1108-1113.	2.0	67
13	Foaming behavior of high-melt strength polypropylene/clay nanocomposites. <i>Polymer Engineering and Science</i> , 2009, 49, 2070-2084.	1.5	66
14	Rheology of LLDPE, LDPE and LLDPE/LDPE blends and its relevance to the film blowing process. <i>Polymer International</i> , 2000, 49, 1580-1589.	1.6	63
15	Molecular-dynamics simulation of model polymer nanocomposite rheology and comparison with experiment. <i>Journal of Chemical Physics</i> , 2005, 123, 194905.	1.2	63
16	Rheological and mechanical comparative study of in situ polymerized and melt-blended nylon 6 nanocomposites. <i>Polymer</i> , 2005, 46, 10405-10418.	1.8	62
17	Rheology and Physical Characteristics of Synthetic Biodegradable Aliphatic Polymer Blends Dispersed with MWNTs. <i>Macromolecular Materials and Engineering</i> , 2010, 295, 320-328.	1.7	62
18	Morphology of EVA based nanocomposites under shear and extensional flow. <i>Polymer Engineering and Science</i> , 2004, 44, 1220-1230.	1.5	58

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19	Potential aspect of rice husk biomass in Australia for nanocrystalline cellulose production. Chinese Journal of Chemical Engineering, 2018, 26, 465-476.	1.7	54
20	Extensional rheology of polypropylene melts from the Rheotens test. Journal of Non-Newtonian Fluid Mechanics, 2001, 101, 77-93.	1.0	53
21	Stability study of nanopigment dispersions. Advanced Powder Technology, 2009, 20, 267-272.	2.0	53
22	Abiotic Oxidation Studies of Oxo-biodegradable Polyethylene. Journal of Polymers and the Environment, 2008, 16, 27-34.	2.4	52
23	Melt strength and film bubble instability of LLDPE/LDPE blends. Polymer International, 1999, 48, 461-466.	1.6	51
24	Morphological influence on mechanical characterization of ethylene-vinyl acetate copolymer-clay nanocomposites. Polymer Engineering and Science, 2005, 45, 889-897.	1.5	51
25	An investigation of melt rheology and thermal stability of poly(lactic acid)/ poly(butylene succinate) nanocomposites. Journal of Applied Polymer Science, 2009, 114, 2837-2847.	1.3	51
26	Influence of graphene nanoplatelet incorporation and dispersion state on thermal, mechanical and electrical properties of biodegradable matrices. Journal of Materials Science and Technology, 2018, 34, 1026-1034.	5.6	50
27	Effect of Clay on Thermal, Mechanical and Gas Barrier Properties of Biodegradable Poly(lactic) Tj ETQq1 1 0.784314 rgBT /Overlock 10 5-14.	0.3	46
28	Flow behaviour of oil-in-water emulsions. Canadian Journal of Chemical Engineering, 1986, 64, 3-10.	0.9	45
29	Transient elongational viscosity of LLDPE/LDPE blends and its relevance to bubble stability in the film blowing process. Polymer Engineering and Science, 1998, 38, 1685-1693.	1.5	45
30	Chemically imaging the interaction of acetylated nanocrystalline cellulose (NCC) with a polylactic acid (PLA) polymer matrix. Cellulose, 2017, 24, 1717-1729.	2.4	45
31	Morphology and rheological behavior of polylactic acid/clay nanocomposites. Polymer Engineering and Science, 2012, 52, 225-232.	1.5	43
32	Phase transition and anomalous rheological behaviour of polylactide/graphene nanocomposites. Composites Part B: Engineering, 2018, 135, 25-34.	5.9	40
33	Oxygen barrier property of polypropylene-polyether treated clay nanocomposite. EXPRESS Polymer Letters, 2008, 2, 429-439.	1.1	38
34	Melt rheological investigation of polylactide-nanographite platelets biopolymer composites. Polymer Engineering and Science, 2014, 54, 175-188.	1.5	37
35	Shear rheology and thermal properties of linear and branched poly(ethylene terephthalate) blends. Polymer, 1999, 40, 5891-5898.	1.8	36
36	Melt strength and extensibility of talc-filled polypropylene. Polymer Engineering and Science, 2003, 43, 1821-1829.	1.5	35

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37	Reactive processing of polyolefins with MAH and GMA in the presence of various additives. Journal of Applied Polymer Science, 2000, 78, 2405-2415.	1.3	34
38	Melt Strength and Elastic Behaviour of LLDPE/LDPE Blends. International Polymer Processing, 1996, 11, 14-20.	0.3	33
39	Analysis of Gas Permeability Characteristics of Poly(Lactic Acid)/Poly(Butylene Succinate) Nanocomposites. Journal of Nanomaterials, 2012, 2012, 1-11.	1.5	33
40	Synthesis and Characterisation of Branched Poly(ethylene terephthalate). Polymer International, 1997, 42, 267-275.	1.6	31
41	Interpreting the near-infrared reflectance of a series of perylene pigments. Dyes and Pigments, 2013, 99, 502-511.	2.0	29
42	Effect of low pressure alkaline delignification process on the production of nanocrystalline cellulose from rice husk. Journal of the Taiwan Institute of Chemical Engineers, 2017, 80, 820-834.	2.7	29
43	An assessment of the dynamic stability of microorganisms on patterned surfaces in relation to biofouling control. Biofouling, 2014, 30, 695-707.	0.8	28
44	Numerical modelling and experimental verification of blown film processing. Journal of Non-Newtonian Fluid Mechanics, 2003, 116, 113-138.	1.0	27
45	Dye/Clay intercalated nanopigments using commercially available non-ionic dye. Dyes and Pigments, 2012, 93, 1512-1518.	2.0	27
46	Biodegradation of montmorillonite filled oxo-biodegradable polyethylene. Journal of Applied Polymer Science, 2009, 113, 2826-2832.	1.3	26
47	The melt extensibility of polypropylene. Polymer International, 2001, 50, 515-523.	1.6	25
48	A novel approach to determine the efficacy of patterned surfaces for biofouling control in relation to its microfluidic environment. Biofouling, 2013, 29, 697-713.	0.8	25
49	Title is missing!. Journal of Materials Science, 1999, 34, 607-614.	1.7	23
50	Influence of rheological properties on the sagging of polypropylene and abs sheet for thermoforming applications. Polymer Engineering and Science, 2000, 40, 1564-1570.	1.5	22
51	Magnetorheological characteristics of nanoparticle-added carbonyl iron system. Journal of Magnetism and Magnetic Materials, 2006, 303, e290-e293.	1.0	22
52	Poly (L-lactic acid)/layered Silicate Nanocomposite Blown Film for Packaging Application: Thermal, Mechanical and Barrier Properties. Journal of Polymer Engineering, 2010, 30, 361-376.	0.6	21
53	Rheological Behaviour of LLDPE/LDPE Blends under Elongational Deformation. International Polymer Processing, 1997, 12, 110-115.	0.3	20
54	Molecular simulation of thermophysical properties of aromatic polymers containing oxetane ring in the main chain. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 2334-2352.	2.4	20

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55	Extensional Rheological Investigation of Biodegradable Polylactide-Nanographite Platelet Composites via Constitutive Equation Modeling. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 851-868.	1.7	20
56	Liquid crystalline polymers: molecular simulation of some polyethers containing oxetanic rings in the main chain. <i>Computational and Theoretical Polymer Science</i> , 1997, 7, 7-11.	1.1	19
57	Study of the orientation and the degree of exfoliation of nanoparticles in poly(ethylene-vinyl acetate) nanocomposites. <i>Journal of Applied Polymer Science</i> , 2003, 90, 3026-3031.	1.3	19
58	Enhanced mixing of Newtonian fluids in a stirred vessel using impeller speed modulation. <i>Canadian Journal of Chemical Engineering</i> , 2009, 87, 839-846.	0.9	19
59	The effect of temperature on the viscoelastic properties of model and industrial dispersions. <i>Journal of Rheology</i> , 1998, 42, 493-506.	1.3	18
60	Dynamic rheology of branched poly(ethylene terephthalate). <i>Polymer International</i> , 2000, 49, 203-208.	1.6	18
61	Melt strength of calcium carbonate filled polypropylene melts. <i>Polymer International</i> , 2002, 51, 1385-1389.	1.6	18
62	Thermal decomposition kinetics of tricomponent polyester/polycarbonate systems. <i>Polymer Engineering and Science</i> , 2011, 51, 2335-2344.	1.5	18
63	Electrical, thermal, and viscoelastic properties of graphene nanoplatelet/poly(butylene Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 47 2016, 133, .	1.3	18
64	Molecular simulation of aromatic polyesters containing oxetane rings in the main chain. <i>Computational and Theoretical Polymer Science</i> , 1999, 9, 1-9.	1.1	17
65	Thermal, Mechanical, and Rheological Characterization of Polylactic Acid/Halloysite Nanotube Nanocomposites. <i>Journal of Macromolecular Science - Physics</i> , 2016, 55, 680-692.	0.4	17
66	Viscoelastic properties and physical gelation of poly (butylene adipate-co-terephthalate)/graphene nanoplatelet nanocomposites at elevated temperatures. <i>Polymer</i> , 2016, 101, 347-357.	1.8	17
67	Rheology of shear thickening suspensions and the effects of wall slip in torsional flow. <i>Rheologica Acta</i> , 2005, 45, 124-131.	1.1	16
68	The comparison between the effects of solvent casting and melt intercalation mixing processes on different characteristics of polylactideâ€œnanographite platelets composites. <i>Polymer Engineering and Science</i> , 2015, 55, 1560-1570.	1.5	16
69	Experimental and simulation study of effect of thickness on performance of (butylene Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 19 electromagnetic interference shielding and metal-backed microwave absorbers. <i>Composites Science and Technology</i> , 2020, 195, 108186.	3.8	16
70	Flow characteristics of primary and digested sewage sludge. <i>Rheologica Acta</i> , 1981, 20, 288-298.	1.1	15
71	Role of mixing parameters in the preparation of poly(ethylene vinyl acetate) nanocomposites by melt blending. <i>Journal of Applied Polymer Science</i> , 2006, 100, 2652-2658.	1.3	15
72	Anomalous first normal stress difference behavior of polymer nanocomposites and liquid crystalline polymer composites. <i>Polymer Engineering and Science</i> , 2014, 54, 1300-1312.	1.5	15

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73	Evaluating the state of dispersion on cellulosic biopolymer by rheology. <i>Journal of Applied Polymer Science</i> , 2016, 133, .	1.3	15
74	Rheological study of black coal-oil suspensions. <i>Rheologica Acta</i> , 1984, 23, 195-206.	1.1	14
75	Modelling of packing behavior of irregularly shaped particles dispersed in a polymer matrix. <i>Powder Technology</i> , 1996, 89, 115-127.	2.1	14
76	Elongational behavior of polyethylene melts?effect of deformation. <i>Polymer Engineering and Science</i> , 2000, 40, 1571-1580.	1.5	14
77	Rheological and molecular properties of organic peroxide induced long chain branching of recycled and virgin high density polyethylene resin. <i>Polymer Engineering and Science</i> , 2009, 49, 1806-1813.	1.5	14
78	Morphological and rheological study of polypropylene blends with a commercial modifier based on hydrogenated oligo (cyclopentadiene). <i>Polymer</i> , 2001, 42, 9809-9817.	1.8	13
79	Molecular simulation and experimental characterisation of monotropic and enantiotropic polymers containing azobenzene and diphenyl mesogens. <i>Computational and Theoretical Polymer Science</i> , 2001, 11, 303-318.	1.1	13
80	Modification of styreneâ€“ethylene/butyleneâ€“styrene copolymer microstructure by polystyrene homopolymer and evolution of a cocontinuous blend morphology. <i>Polymer Engineering and Science</i> , 2012, 52, 2559-2572.	1.5	13
81	Miscibility Studies on cross-linked EVA/LLDPE Blends by TMDSC. <i>Magyar AprÃ³vad KÃ¶zlemÃ©nyek</i> , 2002, 70, 651-662.	1.4	12
82	Tailings beach slope prediction: a new rheological method. <i>International Journal of Mining, Reclamation and Environment</i> , 2006, 20, 181-202.	1.2	12
83	Effect of coupling agents on the crystallinity and viscoelastic properties of composites of rice hull ash-filled polypropylene. <i>Journal of Materials Science</i> , 2007, 42, 10219-10227.	1.7	12
84	Effect of polypropylene on the rheology of co-continuous PS/SEBS blends. <i>Polymer Engineering and Science</i> , 2005, 45, 1432-1444.	1.5	11
85	Role of clay in compatibilization of immiscible high melt strength polypropylene and ethylene vinyl acetate copolymer blends. <i>Polymer Engineering and Science</i> , 2010, 50, 1350-1357.	1.5	11
86	Temperature Rise in the Extrusion of Highly Viscous Composite Materials. <i>International Polymer Processing</i> , 1997, 12, 341-345.	0.3	10
87	Molecular, rheological, and crystalline properties of lowâ€“density polyethylene in blown film extrusion. <i>Polymer Engineering and Science</i> , 2007, 47, 1983-1991.	1.5	10
88	Three-Dimensional Modeling of Tailings Beach Shape. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2007, 23, 31-44.	6.3	10
89	Photo-stability of rhodamine-B/montmorillonite nanopigments in polypropylene matrix. <i>Applied Clay Science</i> , 2008, , .	2.6	10
90	Experimental investigation of the linear viscoelastic response of EVA-based nanocomposites. <i>Journal of Applied Polymer Science</i> , 2006, 101, 2127-2135.	1.3	9

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91	Estimation of Gelatin Layer Thickness on Polystyrene Particles by a Viscometric Study. Journal of Colloid and Interface Science, 1997, 193, 307-311.	5.0	8
92	The effect of moisture on the rheology of brown coal-oil suspensions. Canadian Journal of Chemical Engineering, 1983, 61, 785-790.	0.9	7
93	A Constitutive Analysis of Extensional Flow of EVA Nanocomposites. International Polymer Processing, 2004, 19, 388-394.	0.3	7
94	Extensional rheology of raw natural rubber from new clones of <i>Hevea brasiliensis</i> . Polymer Engineering and Science, 2012, 52, 139-148.	1.5	7
95	Mathematical modeling and numerical simulation for nucleated solution flow through slit die in foam extrusion. Polymer Engineering and Science, 2006, 46, 751-762.	1.5	6
96	Morphological and Mechanical Characterisation of HDPE-EVA Nanocomposites. Journal of Polymer Engineering, 2006, 26, .	0.6	6
97	Size distribution of bubbles in agitated viscous Newtonian and non-Newtonian solutions. Asia-Pacific Journal of Chemical Engineering, 2018, 13, e2267.	0.8	6
98	Fiber orientation prediction in nylon-glass fiber composites using transient rheology and 3-dimensional X-ray computed tomography. Polymer Composites, 2019, 40, E392.	2.3	6
99	Influence of temperature on the viscous behavior of some concentrated dispersions. Journal of Rheology, 1990, 34, 637-655.	1.3	5
100	Investigation of melt extensional deformation of ethylene-vinyl acetate nanocomposites using small-angle light scattering. Polymer Engineering and Science, 2009, 49, 984-992.	1.5	5
101	A DNS Investigation of the Effect of Yield Stress for Turbulent Non-Newtonian Suspension Flow in Open Channels. Particulate Science and Technology, 2011, 29, 209-228.	1.1	5
102	THE EFFECT OF DIE GEOMETRIES AND EXTRUSION RATES ON MELT STRENGTH OF HIGH MELT STRENGTH POLYPROPYLENE. Journal of Polymer Engineering, 2007, 27, .	0.6	4
103	Fiber migration in shear flow: Model predictions and experimental validation. Polymer Composites, 2019, 40, 3573-3581.	2.3	4
104	Some factors influencing the rheological properties of concentrated brown coal-oil suspensions on storage. Powder Technology, 1984, 40, 291-301.	2.1	3
105	Effect of Temperature on the Flow Behavior of Polystyrene Latex-Gelatin Dispersions. Journal of Colloid and Interface Science, 1995, 172, 289-296.	5.0	3
106	Rheological Behaviour of LLDPE/LDPE Blends under Elongational Deformation. International Polymer Processing, 1998, 13, 50-57.	0.3	3
107	Extensional Rheology of Polypropylene in Relation to Processing Characteristics. International Polymer Processing, 2004, 19, 40-46.	0.3	3
108	Melt Strength and Thermal Properties of Organic Peroxide Modified Virgin and Recycled HDPE. International Polymer Processing, 2008, 23, 200-207.	0.3	3

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109	Morphological Characterisation and Dynamic Rheology of Nano-Structured Blends of Polystyrene and SEBS. Journal of Polymer Engineering, 2010, 30, .	0.6	3
110	An investigation between high and low pressure processes for nanocrystalline cellulose production from agro-waste biomass. AIP Conference Proceedings, 2017, , .	0.3	3
111	Control of the mixing time in vessels agitated by submerged recirculating jets. Royal Society Open Science, 2018, 5, 171037.	1.1	3
112	The influence of hormitic clay on the time dependent properties of formulated gypsum plaster pastes. Journal of Materials Science, 2003, 38, 3871-3875.	1.7	2
113	Laminar flow of Non-Newtonian thickened tailings slurry through an open channel. Canadian Journal of Chemical Engineering, 2015, 93, 1922-1928.	0.9	2
114	Transient viscosity of fibre-filled composites incorporating evolution of fibre orientation and concentration. Rheologica Acta, 2020, 59, 35-46.	1.1	2
115	Prediction and experimental verification of bubble and processing characteristics in blown-film extrusion. Journal of Applied Polymer Science, 2009, 111, 2657-2668.	1.3	1
116	The Rheology of Polymeric Nanocomposites. , 2009, , .		1
117	Conducting Nanostructured Polymer Materials and their Electrorheological Application. Journal of Polymer Engineering, 2010, 30, 339-360.	0.6	1
118	Simulation Study of Thermotropic LCPs and Prediction of Normal Stress Difference at High Shear Rate. International Polymer Processing, 2013, 28, 470-482.	0.3	1
119	Rheology and physical characterization of graphene nanoplatelet/poly (butylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 342 Tj	0.3	1
120	Non-Newtonian thickened tailings slurry flow through open channels. International Journal of Mining and Mineral Engineering, 2017, 8, 310.	0.1	1
121	A novel methodology for measuring batch settling velocities of particles using Electrical Resistance Tomography. Chemical Engineering Science, 2022, 250, 117364.	1.9	1
122	The effect of temperature and moisture on the rheology of black coal-oil suspensions. Canadian Journal of Chemical Engineering, 1985, 63, 870-877.	0.9	0
123	Application of an electric field to enhance the flow of coal-water slurries in pipelines. Mining, Metallurgy and Exploration, 2001, 18, 25-30.	0.4	0
124	Preparation and Synthesis. , 2007, , 5-33.		0
125	A DNS Investigation of Non-Newtonian Turbulent Open Channel Flow. , 2010, , .		0
126	Recent Advances in the Rheology of Thermotropic Liquid Crystal Polymers. , 2015, , 69-102.		0

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127	Optimization and modelling of delignification process for nanocrystalline cellulose production from rice husk biomass. AIP Conference Proceedings, 2017, , .	0.3	0
128	Anomalous Viscoelastic Behaviors of Polymer Nanocomposites During Shear and Extensional Deformations. , 2019, , 313-342.		0