

# Sati N Bhattacharya

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

130  
papers

2,960  
citations

32  
h-index

48  
g-index

134  
ext. papers

3,193  
ext. citations

3.2  
avg, IF

5.13  
L-index

#	Paper	IF	Citations
130	A novel methodology for measuring batch settling velocities of particles using Electrical Resistance Tomography. <i>Chemical Engineering Science</i> , <b>2022</b> , 250, 117364	4.4	0
129	Transient viscosity of fibre-filled composites incorporating evolution of fibre orientation and concentration. <i>Rheologica Acta</i> , <b>2020</b> , 59, 35-46	2.3	2
128	Experimental and simulation study of effect of thickness on performance of (butylene adipate-co-terephthalate) and poly lactide nanocomposites incorporated with graphene as stand-alone electromagnetic interference shielding and metal-backed microwave absorbers. <i>Composites Science and Technology</i> , <b>2020</b> , 185, 108181	8.6	11
127	Fiber migration in shear flow: Model predictions and experimental validation. <i>Polymer Composites</i> , <b>2019</b> , 40, 3573-3581	3	4
126	Anomalous Viscoelastic Behaviors of Polymer Nanocomposites During Shear and Extensional Deformations <b>2019</b> , 313-342		
125	Fiber orientation prediction in nylon-6 glass fiber composites using transient rheology and 3-dimensional x-ray computed tomography. <i>Polymer Composites</i> , <b>2019</b> , 40, E392	3	5
124	Control of the mixing time in vessels agitated by submerged recirculating jets. <i>Royal Society Open Science</i> , <b>2018</b> , 5, 171037	3.3	2
123	Potential aspect of rice husk biomass in Australia for nanocrystalline cellulose production. <i>Chinese Journal of Chemical Engineering</i> , <b>2018</b> , 26, 465-476	3.2	30
122	Influence of graphene nanoplatelet incorporation and dispersion state on thermal, mechanical and electrical properties of biodegradable matrices. <i>Journal of Materials Science and Technology</i> , <b>2018</b> , 34, 1026-1034	9.1	41
121	Phase transition and anomalous rheological behaviour of polylactide/graphene nanocomposites. <i>Composites Part B: Engineering</i> , <b>2018</b> , 135, 25-34	10	32
120	Size distribution of bubbles in agitated viscous Newtonian and non-Newtonian solutions. <i>Asia-Pacific Journal of Chemical Engineering</i> , <b>2018</b> , 13, e2267	1.3	3
119	Chemically imaging the interaction of acetylated nanocrystalline cellulose (NCC) with a polylactic acid (PLA) polymer matrix. <i>Cellulose</i> , <b>2017</b> , 24, 1717-1729	5.5	36
118	An investigation between high and low pressure processes for nanocrystalline cellulose production from agro-waste biomass <b>2017</b> ,		3
117	Effect of low pressure alkaline delignification process on the production of nanocrystalline cellulose from rice husk. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , <b>2017</b> , 80, 820-834	5.3	16
116	Rheology and physical characterization of graphene nanoplatelet/poly (butylene adipate-co-terephthalate) nanocomposites <b>2017</b> ,		1
115	Viscoelastic properties and physical gelation of poly (butylene adipate-co-terephthalate)/graphene nanoplatelet nanocomposites at elevated temperatures. <i>Polymer</i> , <b>2016</b> , 101, 347-357	3.9	16
114	Electrical, thermal, and viscoelastic properties of graphene nanoplatelet/poly(butylene adipate-co-terephthalate) biodegradable nanocomposites. <i>Journal of Applied Polymer Science</i> , <b>2016</b> , 133,	2.9	14

113	Morphology, electromagnetic properties and electromagnetic interference shielding performance of poly lactide/graphene nanoplatelet nanocomposites. <i>Materials and Design</i> , <b>2016</b> , 95, 119-126	8.1	125
112	Evaluating the state of dispersion on cellulosic biopolymer by rheology. <i>Journal of Applied Polymer Science</i> , <b>2016</b> , 133, n/a-n/a	2.9	13
111	Thermal, Mechanical, and Rheological Characterization of Polylactic Acid/Halloysite Nanotube Nanocomposites. <i>Journal of Macromolecular Science - Physics</i> , <b>2016</b> , 55, 680-692	1.4	15
110	Dielectric properties and electromagnetic interference shielding effectiveness of graphene-based biodegradable nanocomposites. <i>Materials and Design</i> , <b>2016</b> , 109, 68-78	8.1	77
109	Recent Advances in the Rheology of Thermotropic Liquid Crystal Polymers <b>2015</b> , 69-102		
108	Laminar flow of Non-Newtonian thickened tailings slurry through an open channel. <i>Canadian Journal of Chemical Engineering</i> , <b>2015</b> , 93, 1922-1928	2.3	1
107	The comparison between the effects of solvent casting and melt intercalation mixing processes on different characteristics of polylactide-nanographite platelets composites. <i>Polymer Engineering and Science</i> , <b>2015</b> , 55, 1560-1570	2.3	15
106	Extensional Rheological Investigation of Biodegradable Polylactide-Nanographite Platelet Composites via Constitutive Equation Modeling. <i>Macromolecular Materials and Engineering</i> , <b>2014</b> , 299, 851-868	3.9	15
105	Dispersion study of nanofibrillated cellulose based poly(butylene adipate-co-terephthalate) composites. <i>Carbohydrate Polymers</i> , <b>2014</b> , 102, 537-42	10.3	51
104	An assessment of the dynamic stability of microorganisms on patterned surfaces in relation to biofouling control. <i>Biofouling</i> , <b>2014</b> , 30, 695-707	3.3	23
103	Anomalous first normal stress difference behavior of polymer nanocomposites and liquid crystalline polymer composites. <i>Polymer Engineering and Science</i> , <b>2014</b> , 54, 1300-1312	2.3	12
102	Melt rheological investigation of polylactide-nanographite platelets biopolymer composites. <i>Polymer Engineering and Science</i> , <b>2014</b> , 54, 175-188	2.3	34
101	Improved dispersion of cellulose microcrystals in polylactic acid (PLA) based composites applying surface acetylation. <i>Chemical Engineering Science</i> , <b>2013</b> , 101, 655-662	4.4	65
100	Interpreting the near-infrared reflectance of a series of perylene pigments. <i>Dyes and Pigments</i> , <b>2013</b> , 99, 502-511	4.6	26
99	Simulation Study of Thermotropic LCPs and Prediction of Normal Stress Difference at High Shear Rate. <i>International Polymer Processing</i> , <b>2013</b> , 28, 470-482	1	1
98	A novel approach to determine the efficacy of patterned surfaces for biofouling control in relation to its microfluidic environment. <i>Biofouling</i> , <b>2013</b> , 29, 697-713	3.3	20
97	Near-infrared reflective properties of perylene derivatives. <i>Dyes and Pigments</i> , <b>2012</b> , 92, 1108-1113	4.6	51
96	Dye/Clay intercalated nanopigments using commercially available non-ionic dye. <i>Dyes and Pigments</i> , <b>2012</b> , 93, 1512-1518	4.6	21

95	Analysis of Gas Permeability Characteristics of Poly(Lactic Acid)/Poly(Butylene Succinate) Nanocomposites. <i>Journal of Nanomaterials</i> , <b>2012</b> , 2012, 1-11	3.2	26
94	Properties of linear poly(lactic acid)/polyethylene glycol blends. <i>Polymer Engineering and Science</i> , <b>2012</b> , 52, 108-116	2.3	121
93	Extensional rheology of raw natural rubber from new clones of Hevea brasiliensis. <i>Polymer Engineering and Science</i> , <b>2012</b> , 52, 139-148	2.3	5
92	Morphology and rheological behavior of polylactic acid/clay nanocomposites. <i>Polymer Engineering and Science</i> , <b>2012</b> , 52, 225-232	2.3	38
91	Modification of styrene-ethylene/butylene-ethylene copolymer microstructure by polystyrene homopolymer and evolution of a cocontinuous blend morphology. <i>Polymer Engineering and Science</i> , <b>2012</b> , 52, 2559-2572	2.3	12
90	Thermal decomposition kinetics of tricomponent polyester/polycarbonate systems. <i>Polymer Engineering and Science</i> , <b>2011</b> , 51, 2335-2344	2.3	15
89	A DNS Investigation of the Effect of Yield Stress for Turbulent Non-Newtonian Suspension Flow in Open Channels. <i>Particulate Science and Technology</i> , <b>2011</b> , 29, 209-228	2	2
88	Poly (L-lactic acid)/layered Silicate Nanocomposite Blown Film for Packaging Application: Thermal, Mechanical and Barrier Properties. <i>Journal of Polymer Engineering</i> , <b>2010</b> , 30,	1.4	19
87	Morphological Characterisation and Dynamic Rheology of Nano-Structured Blends of Polystyrene and SEBS. <i>Journal of Polymer Engineering</i> , <b>2010</b> , 30,	1.4	3
86	Conducting Nanostructured Polymer Materials and their Electrorheological Application. <i>Journal of Polymer Engineering</i> , <b>2010</b> , 30,	1.4	1
85	Effect of Clay on Thermal, Mechanical and Gas Barrier Properties of Biodegradable Poly(lactic acid)/Poly(butylene succinate) (PLA/PBS) Nanocomposites. <i>International Polymer Processing</i> , <b>2010</b> , 25, 5-14	1	36
84	Rheology and Physical Characteristics of Synthetic Biodegradable Aliphatic Polymer Blends Dispersed with MWNTs. <i>Macromolecular Materials and Engineering</i> , <b>2010</b> , 295, 320-328	3.9	59
83	Role of clay in compatibilization of immiscible high melt strength polypropylene and ethylene vinyl acetate copolymer blends. <i>Polymer Engineering and Science</i> , <b>2010</b> , 50, 1350-1357	2.3	11
82	Enhanced mixing of Newtonian fluids in a stirred vessel using impeller speed modulation. <i>Canadian Journal of Chemical Engineering</i> , <b>2009</b> , 87, 839-846	2.3	16
81	Biodegradation of oxo-biodegradable polyethylene. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 111, 1426-1432	4.32	51
80	Prediction and experimental verification of bubble and processing characteristics in blown-film extrusion. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 111, 2657-2668	2.9	1
79	Biodegradation of montmorillonite filled oxo-biodegradable polyethylene. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 113, 2826-2832	2.9	26
78	An investigation of melt rheology and thermal stability of poly(lactic acid)/ poly(butylene succinate) nanocomposites. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 114, 2837-2847	2.9	44

77	Morphological and rheological characterization of multi-walled carbon nanotube/PLA/PBAT blend nanocomposites. <i>Polymer Bulletin</i> , <b>2009</b> , 63, 125-134	2.4	79
76	Investigation of melt extensional deformation of ethylene-vinyl acetate nanocomposites using small-angle light scattering. <i>Polymer Engineering and Science</i> , <b>2009</b> , 49, 984-992	2.3	4
75	Foaming behavior of high-melt strength polypropylene/clay nanocomposites. <i>Polymer Engineering and Science</i> , <b>2009</b> , 49, 2070-2084	2.3	56
74	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> , <b>2009</b> , 49, 1806-1813	2.3	11
73	Stability study of nanopigment dispersions. <i>Advanced Powder Technology</i> , <b>2009</b> , 20, 267-272	4.6	43
72	The Rheology of Polymeric Nanocomposites <b>2009</b> ,		1
71	Photo-stability of rhodamine-B/montmorillonite nanopigments in polypropylene matrix. <i>Applied Clay Science</i> , <b>2008</b> ,	5.2	6
70	Melt Strength and Thermal Properties of Organic Peroxide Modified Virgin and Recycled HDPE. <i>International Polymer Processing</i> , <b>2008</b> , 23, 200-207	1	2
69	Abiotic Oxidation Studies of Oxo-biodegradable Polyethylene. <i>Journal of Polymers and the Environment</i> , <b>2008</b> , 16, 27-34	4.5	45
68	Oxygen barrier property of polypropylene-polyether treated clay nanocomposite. <i>EXPRESS Polymer Letters</i> , <b>2008</b> , 2, 429-439	3.4	30
67	Molecular, rheological, and crystalline properties of low-density polyethylene in blown film extrusion. <i>Polymer Engineering and Science</i> , <b>2007</b> , 47, 1983-1991	2.3	10
66	Three-Dimensional Modeling of Tailings Beach Shape. <i>Computer-Aided Civil and Infrastructure Engineering</i> , <b>2007</b> , 23, 31-44	8.4	8
65	Effect of coupling agents on the crystallinity and viscoelastic properties of composites of rice hull ash-filled polypropylene. <i>Journal of Materials Science</i> , <b>2007</b> , 42, 10219-10227	4.3	8
64	Preparation and Synthesis <b>2007</b> , 5-33		
63	THE EFFECT OF DIE GEOMETRIES AND EXTRUSION RATES ON MELT STRENGTH OF HIGH MELT STRENGTH POLYPROPYLENE. <i>Journal of Polymer Engineering</i> , <b>2007</b> , 27,	1.4	4
62	Application of Polymer Nanocomposites <b>2007</b> , 339-373		2
61	Rheology of Nanocomposites <b>2007</b> , 145-231		2
60	Polymeric Nanocomposites <b>2007</b> ,		29

59 Structure and Properties Characterization **2007**, 269-338

58 Processing of Nanocomposites **2007**, 233-267

57 Experimental investigation of the linear viscoelastic response of EVA-based nanocomposites. *Journal of Applied Polymer Science*, **2006**, 101, 2127-2135 2.9 9

56 Role of mixing parameters in the preparation of poly(ethylene vinyl acetate) nanocomposites by melt blending. *Journal of Applied Polymer Science*, **2006**, 100, 2652-2658 2.9 12

55 Morphological and Mechanical Characterisation of HDPE-EVA Nanocomposites. *Journal of Polymer Engineering*, **2006**, 26, 1.4 5

54 Tailings beach slope prediction: a new rheological method. *International Journal of Mining, Reclamation and Environment*, **2006**, 20, 181-202 2.2 8

53 Mathematical modeling and numerical simulation for nucleated solution flow through slit die in foam extrusion. *Polymer Engineering and Science*, **2006**, 46, 751-762 2.3 5

52 Magnetorheological characteristics of nanoparticle-added carbonyl iron system. *Journal of Magnetism and Magnetic Materials*, **2006**, 303, e290-e293 2.8 20

51 Molecular-dynamics simulation of model polymer nanocomposite rheology and comparison with experiment. *Journal of Chemical Physics*, **2005**, 123, 194905 3.9 56

50 Shear and extensional rheology of EVA/layered silicate-nanocomposites. *Journal of Non-Newtonian Fluid Mechanics*, **2005**, 128, 116-125 2.7 81

49 Rheological and mechanical comparative study of in situ polymerized and melt-blended nylon 6 nanocomposites. *Polymer*, **2005**, 46, 10405-10418 3.9 60

48 Clay intercalation and influence on crystallinity of EVA-based clay nanocomposites. *Thermochimica Acta*, **2005**, 433, 187-195 2.9 74

47 Rheology of shear thickening suspensions and the effects of wall slip in torsional flow. *Rheologica Acta*, **2005**, 45, 124-131 2.3 15

46 Morphological influence on mechanical characterization of ethylene-vinyl acetate copolymer/clay nanocomposites. *Polymer Engineering and Science*, **2005**, 45, 889-897 2.3 48

45 Effect of polypropylene on the rheology of co-continuous PS/SEBS blends. *Polymer Engineering and Science*, **2005**, 45, 1432-1444 2.3 11

44 Extensional Rheology of Polypropylene in Relation to Processing Characteristics. *International Polymer Processing*, **2004**, 19, 40-46 1 3

43 A Constitutive Analysis of Extensional Flow of EVA Nanocomposites. *International Polymer Processing*, **2004**, 19, 388-394 1 5

42 Effect of vinyl acetate content and silicate loading on EVA nanocomposites under shear and extensional flow. *Rheologica Acta*, **2004**, 43, 99-108 2.3 74

41	Morphology of EVA based nanocomposites under shear and extensional flow. <i>Polymer Engineering and Science</i> , <b>2004</b> , 44, 1220-1230	2.3	56
40	The influence of hormitic clay on the time dependent properties of formulated gypsum plaster pastes. <i>Journal of Materials Science</i> , <b>2003</b> , 38, 3871-3875	4.3	2
39	Study of the orientation and the degree of exfoliation of nanoparticles in poly(ethylene-vinyl acetate) nanocomposites. <i>Journal of Applied Polymer Science</i> , <b>2003</b> , 90, 3026-3031	2.9	17
38	Numerical modelling and experimental verification of blown film processing. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2003</b> , 116, 113-138	2.7	23
37	Melt strength and extensibility of talc-filled polypropylene. <i>Polymer Engineering and Science</i> , <b>2003</b> , 43, 1821-1829	2.3	31
36	Melt strength of calcium carbonate filled polypropylene melts. <i>Polymer International</i> , <b>2002</b> , 51, 1385-1389	3.3	15
35	Miscibility Studies on cross-linked EVA/LLDPE Blends by TMDSC. <i>Magyar Ábrázoló Képzőművészet</i> , <b>2002</b> , 70, 651-662	0	12
34	Extensional rheology of polypropylene melts from the Rheotens test. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2001</b> , 101, 77-93	2.7	48
33	Morphological and rheological study of polypropylene blends with a commercial modifier based on hydrogenated oligo (cyclopentadiene). <i>Polymer</i> , <b>2001</b> , 42, 9809-9817	3.9	13
32	Molecular simulation and experimental characterisation of monotropic and enantiotropic polymers containing azobenzene and diphenyl mesogens. <i>Computational and Theoretical Polymer Science</i> , <b>2001</b> , 11, 303-318		12
31	The melt extensibility of polypropylene. <i>Polymer International</i> , <b>2001</b> , 50, 515-523	3.3	24
30	Application of an electric field to enhance the flow of coal-water slurries in pipelines. <i>Mining, Metallurgy and Exploration</i> , <b>2001</b> , 18, 25-30	1.1	
29	Dynamic rheology of branched poly(ethylene terephthalate). <i>Polymer International</i> , <b>2000</b> , 49, 203-208	3.3	18
28	Rheology of LLDPE, LDPE and LLDPE/LDPE blends and its relevance to the film blowing process. <i>Polymer International</i> , <b>2000</b> , 49, 1580-1589	3.3	57
27	Reactive processing of polyolefins with MAH and GMA in the presence of various additives. <i>Journal of Applied Polymer Science</i> , <b>2000</b> , 78, 2405-2415	2.9	32
26	Influence of rheological properties on the sagging of polypropylene and abs sheet for thermoforming applications. <i>Polymer Engineering and Science</i> , <b>2000</b> , 40, 1564-1570	2.3	18
25	Elongational behavior of polyethylene melts—Effect of deformation. <i>Polymer Engineering and Science</i> , <b>2000</b> , 40, 1571-1580	2.3	13
24	Shear rheology and thermal properties of linear and branched poly(ethylene terephthalate) blends. <i>Polymer</i> , <b>1999</b> , 40, 5891-5898	3.9	33

23	Molecular simulation of aromatic polyesters containing oxetane rings in the main chain. <i>Computational and Theoretical Polymer Science</i> , <b>1999</b> , 9, 1-9		16
22	The effect of dispersed paint particles on the mechanical properties of rubber toughened polypropylene composites. <i>Journal of Materials Science</i> , <b>1999</b> , 34, 607-614	4.3	18
21	Melt strength and film bubble instability of LLDPE/LDPE blends. <i>Polymer International</i> , <b>1999</b> , 48, 461-466.	3	46
20	Molecular simulation of thermophysical properties of aromatic polymers containing oxetane ring in the main chain. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>1999</b> , 37, 2334-2352	2.6	19
19	Transient elongational viscosity of LLDPE/LDPE blends and its relevance to bubble stability in the film blowing process. <i>Polymer Engineering and Science</i> , <b>1998</b> , 38, 1685-1693	2.3	42
18	Melt strength of polypropylene: Its relevance to thermoforming. <i>Polymer Engineering and Science</i> , <b>1998</b> , 38, 1915-1923	2.3	74
17	The effect of temperature on the viscoelastic properties of model and industrial dispersions. <i>Journal of Rheology</i> , <b>1998</b> , 42, 493-506	4.1	18
16	Rheological Behaviour of LLDPE/LDPE Blends under Elongational Deformation. <i>International Polymer Processing</i> , <b>1998</b> , 13, 50-57	1	3
15	Rheological Behaviour of LLDPE/LDPE Blends under Elongational Deformation. <i>International Polymer Processing</i> , <b>1997</b> , 12, 110-115	1	20
14	Temperature Rise in the Extrusion of Highly Viscous Composite Materials. <i>International Polymer Processing</i> , <b>1997</b> , 12, 341-345	1	7
13	Liquid crystalline polymers: molecular simulation of some polyethers containing oxetanic rings in the main chain. <i>Computational and Theoretical Polymer Science</i> , <b>1997</b> , 7, 7-11		19
12	Synthesis and Characterisation of Branched Poly(ethylene terephthalate). <i>Polymer International</i> , <b>1997</b> , 42, 267-275	3.3	29
11	Estimation of Gelatin Layer Thickness on Polystyrene Particles by a Viscometric Study. <i>Journal of Colloid and Interface Science</i> , <b>1997</b> , 193, 307-11	9.3	7
10	Melt Strength and Elastic Behaviour of LLDPE/LDPE Blends. <i>International Polymer Processing</i> , <b>1996</b> , 11, 14-20	1	31
9	Modelling of packing behavior of irregularly shaped particles dispersed in a polymer matrix. <i>Powder Technology</i> , <b>1996</b> , 89, 115-127	5.2	12
8	Effect of Temperature on the Flow Behavior of Polystyrene Latex-Gelatin Dispersions. <i>Journal of Colloid and Interface Science</i> , <b>1995</b> , 172, 289-296	9.3	3
7	Influence of temperature on the viscous behavior of some concentrated dispersions. <i>Journal of Rheology</i> , <b>1990</b> , 34, 637-655	4.1	5
6	Flow behaviour of oil-in-water emulsions. <i>Canadian Journal of Chemical Engineering</i> , <b>1986</b> , 64, 3-10	2.3	38



5	The effect of temperature and moisture on the rheology of black coal-oil suspensions. <i>Canadian Journal of Chemical Engineering</i> , <b>1985</b> , 63, 870-877	2.3	
4	Rheological study of black coal-oil suspensions. <i>Rheologica Acta</i> , <b>1984</b> , 23, 195-206	2.3	14
3	Some factors influencing the rheological properties of concentrated brown coal-oil suspensions on storage. <i>Powder Technology</i> , <b>1984</b> , 40, 291-301	5.2	3
2	The effect of moisture on the rheology of brown coal-oil suspensions. <i>Canadian Journal of Chemical Engineering</i> , <b>1983</b> , 61, 785-790	2.3	7
1	Flow characteristics of primary and digested sewage sludge. <i>Rheologica Acta</i> , <b>1981</b> , 20, 288-298	2.3	11