

Curriculum Vitae of Prof. Nikhil K. Singha (M.Tech., Ph.D.)

Professor Nikhil K. Singha, FRSC

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Research Interest:

- Tailor-made functional polymers and elastomers
- Smart self-healing, self-cleaning, super-hydrophobic polymer materials.
- Block, graft copolymers, electro-active, bio-active polymers and tailor-made polymer composites and polymer gels via controlled polymerization & their applications in self-healing and self-cleaning coatings, fire-retardant packaging, space applications, advanced tire applications, smart biomaterials.
- Green & sustainable materials and process

Education:

B.Sc.: Chemistry (Main) University of Calcutta, India

M.Sc.: Chemistry (Organic), Indian Institute of Technology (IIT), Kharagpur, India, 1988

M.Tech.: Rubber Technology Centre, IIT, Kharagpur, India, 1990

Ph.D.: IIT Bombay & NCL, Pune, India, 1996 (Supervisor; Dr. S. Sivaram)

Awards / fellowships & members of scientific organization:

Fellow of Royal Society Chemistry (FRSC), Awarded **Prof. M. Santappa Award** (2014) by Society of Polymer Science India (SPSI), **MRSI Medal** by Material Research Society of India (MRSI) (2013), **Fulbright Senior Fellowship** (2013), **Fifth Polymer Foundation Award** by Prof. Sukumar Maiti Polymer Award Foundation (2012), Visiting Scientist in University of Sheffield, UK with fellowship from **Royal Society**, London, UK (2006), in Institute for Polymer Research, Germany with **INSA-DFG & DAAD** fellowship (2008 & 2011) and in EPFL, Switzerland, Fellowship from **Swiss Federal Institute** (2009).

Fellow of Royal Society Chemistry (**FRSC**), Life member of Materials Research Society of India (**MRSI**), Society of Polymer science of India (**SPSI**) & Chemical Research Society of India (**CRSI**), Affiliated member of ACS (1997-2009), Member of ACS, Rubber Division (since 2009). Member of ACS Polymer Chemistry (2012),

Professional Experience:

October, 2016 to September, 2019, Chair, Rubber Technology Centre, IIT Kharagpur

Feb, 2015- till date: Professor in Indian Institute of Technology, Kharagpur, India

May, 2010- Jan. 2015: Associate Professor in Indian Institute of Technology, Kharagpur, India

August, 2013 to April, 2014; Fulbright Senior Fellow, University of Tennessee, Knoxville, USA

2003- May, 2010: Assistant Professor in Indian Institute of Technology, Kharagpur, India

2001-2002: Research Scientist in Netherlands Organization for Applied & Scientific Research, Eindhoven, NL

1999-2000: Post Doctoral Fellow in Dutch Polymer Institute (DPI), Eindhoven University of Technology, NL.

1996-1998: Post Doctoral fellow in DSM Research, Geleen, The Netherlands

Supervisor: Ph.D. students; 18 (Completed), (10 under progress) and M. Tech students (~ 50 students)

Member of the Editorial Board:

European Polymer Journal, Elsevier Publications;

SPE Polymers, Wiley Online Publications

Associate Editor in Frontiers in Chemistry (Polymer Section) Published from EPFL, Switzerland.

International Conferences & Workshop organized as Convener:

- International Workshop under the SPARC project (with University of Melbourne) on “**Green and Sustainability in Polymers and Functional Materials**” (GSPFM-2020) held in February 7-8, 2020 in IIT Kharagpur,
 - Convener of International Conference “**Advances in Polymer Science and Rubber Technology (APSRT-2019); Vision 2030**” held in IIT Kharagpur during September 24-27, 2019 (attended by > 250 delegates from 10 different countries),
 - **International Year of Chemistry (IYC) & National Symposium on Frontiers in Polymer Chemistry**, November 29-30, 2011 in IIT Kharagpur,
 - Convener of International Conference on “**Advances in Polymer Science and Rubber Technology; Challenges towards 2020 and beyond**” held in IIT, Kharagpur, India in March 3-5, 2011,
 - **As Co-Convener, International Workshop on “Materials for Regeneration & Therapy of the Eye**” held in July 25-29, 2011 in Sheffield, UK under Indo-UK Science Network Program
 - International Workshop on “**Recent Advances in Polymeric and Rubbery Materials**” in January 15-19, 2007, in IIT Kharagpur.

Reviewer of PhD thesis; IISc Bangalore, IIT Bombay, IIT Madras, IIT Guwahati, IIT Patna, NCL Pune, University Jadavpur, University Calcutta, University Hyderabad, University Trivandrum, University Guwahati, University Tezpur, University Cochin,

Publications/Patents

Peer-reviewed journals 160, Patent 13 (one US, one European and eleven Indian patents), Books Edited (Smithers RAPRA, Reprinted by de Gruyter), Book Chapters 10 and Conference Proceedings 88. H-index is 36, i-10 index 101 and citations index is 6104 (by Google Scholar).

Publications in major journals like; Chemical Eng. Journal (IF 10.62), Progress in polymer Science (IF 24.50), Green Chemistry (IF 9.45), ACS Applied Materials & Interfaces (8.34), Chemical Communications (IF 6.16), Macromolecules (IF 6.00), Materials Science Eng. C (IF 5.88), Journal of Materials Chemistry B (IF 5.24), Polymer (IF 4.23), European Polymer Journal (IF 3.86),

Highlights of the research contribution:

The research interest of my research group involves the preparation of smart functional materials based on polyacrylates, fluoropolymers, polyurethanes, polyzwitterions, smart-hydrogels, polymer nano-composites based on nano-clay, graphene and metal-complex. Importantly, he has successfully demonstrated the application of these polymers in self-healing, self-cleaning, superhydrophobic, shape-

memory, fire-retardant materials, insulation materials, vehicles for targeted drug delivery in biomaterials like contact lenses, muscle-mimetic materials. Many of these materials were analyzed, tested and filed for IPR which are being subjected to technology transfer. Many of these projects have national importance and have been funded by DRDO, ISRO, DAE, DST, CSIR, SERB under IMPRINT and Uchhatara-Avishkar-Yojana (UAY). I am also involved with several foreign collaborative projects like SPARC project with University of Melbourne, University of Manchester, UK, DST-DFG project with University of Aachen, Germany, Leibnitz Institute for Polymer Research, Dresden, Germany.

List of Publications/Patents

Total Publications: Peer-reviewed journals 161, Patent 13 (one US, one European and eleven Indian patents), Book 1 (Smithers Rapra), Book Chapter 9 and Conference Proceedings 88. (* indicates corresponding author). H-index is 38, i-10 index 102 and citations index is 6183 (by Google Scholar).

1	Banerjee, Sovan Lal, Bhattacharyya, Koushik, Das, Subhayan; Kundu, Moumita, Mandal, Mahitosh; Singha, Nikhil Kumar* (2021), Ag NPs incorporated Self-healable Thermoresponsive Hydrogel Using Precise Structural “Interlocking” Complex of Polyelectrolyte BCPs: A Potential New Wound Healing Material, Chemical Engineering Journal , 405, 1264363 https://doi.org/10.1016/j.cej.2020.126436
2	Bhattacharya, Koushik; Banerjee, Sovan Lal; Das, Subhayan; Mandal, Mahitosh; Singha, Nikhil Kumar* (2020); Glycopolymer Ornamented Octa-arm POSS Based Organic-Inorganic Hybrid Star Block Copolymer as a Lectin Binding Ligand, Materials Science & Engineering C 116 (2 111210) . https://doi.org/10.1016/j.msec.2020.111210 .
3	Mondal P.; Behera, P.K; Voit, B. Boheme*; Singha, Nikhil K.* (2020): Tailor-made Functional Polymethacrylates with Dual Characteristics of Self-healing and Shape-memory based on Dynamic Covalent Chemistry, (2020), Macromolecular Materials and Engineering , 305, 2000142.
4	Banerjee, SL; Samanta, S.; Sarkar, S; Singha, N. K.* (2020): A self-healable and antifouling hydrogel based on PDMS centered ABA tri-block copolymer polymersomes: a potential material for therapeutic contact lenses, Journal of Materials Chemistry B , 8, 226-243.
5	Saha, C, Behera, P.K, Raut S.G. Singha, Nikhil K.* (2020): A Thermoplastic Polyurethane/Nanosilica Composite via Melt mixing process and Its Properties, Silicon , DOI: 10.1007/s12633-020-00487-1.
6	Siva, P.; Chakrabarty, A.; Mondal, P.; Hoogenboom, R.; Lowe, A.B.; Singha, Nikhil, K.* (2020): POSS and fluorine containing nanostructured block copolymer; Synthesis via RAFT polymerization and its application as hydrophobic coating material, European Polymer Journal , 131, 109679.
7	Pal, S., Banerjee S, Kather M., Saha Pabitra, Pich A, Singha Nikhil K* (2020): Dual Stimuli-Responsive Self-Assembly Behavior of a Tailor-made ABC-type Amphiphilic Tri-block Copolymer, Journal of Polymer Science , 58, 843-851.
8	Gnanaseelan, M.; Kalita, U.; Janke, A.; Pionteck, J.; Voit, B. Singha, N. K. (2020): All methacrylate block copolymer/TiO ₂ nanocomposite via ATRP and <i>in-situ</i> sol-gel process, Materials Today Communications , 22, 100728

9	Murugan, N.; Amrishkumar, P.; Nando, G. B.; Singha, N. K.* (2020): Thermoplastic elastomer blend based on EMA and NBR; optimization of process parameters, <i>Journal of Applied Polymer Science</i> , 137 (27), 48900.
10	Saha, P.; Santi, M.; Frenken, M.; Palanisamy, AR.; Ganguly, R.; and Singha, Nikhil K*, Pich, A* (2020): Dual-Temperature-Responsive Microgels from a Zwitterionic Functional Graft Copolymer with Superior Protein Repelling Property, <i>ACS Macro Letters</i> , 9 , 895-901
11	Kumar, ARSS and Singha, N. K*. (2020): Reversible Addition-Fragmentation Chain Transfer (RAFT) Polymerization in Ionic Liquids: A Sustainable Process, <i>Advances in Sustainable Polymers</i> , 183-193 .
12	Samanta, S.; Banerjee, SL.; Ghosh, S.; Singha, N. K.* (2019): A Smart Polyacrylate Emulsion Based on a New ABC Type Triblock Copolymer via RAFT Mediated Surfactant-free Miniemulsion Polymerization: Its Multifunctional Properties, <i>ACS Applied Materials & Interfaces</i> , 11 , 47, 44722-44734.
13	Santha Kumar, ARRS; Singha, N. K.*(2019): RAFT polymerization of 2-hydroxyethyl methacrylate in a deep eutectic solvent, <i>Journal of Polymer Science, Part A: Polymer Chemistry</i> , 57 , 2281–2286.
14	Mondal, P.; Jana, G. ; Behera, P. K., Chattaraj, Pratim K; Singha, Nikhil K*(2019): A New Healable Polymer Material based on Ultrafast Diels-Alder ‘Click’ Chemistry using Triazolinedione and Fluorescent Anthracyl Derivatives; A Mechanistic Approach, <i>Polymer Chemistry</i> , 10 , 5070–5079.
15	Banerjee, Sovan Lal; Swift, Thomas; Hoskins, Richard; Rimmer, Stephen*; Singha, Nikhil K. * (2019): A muscle mimetic polyelectrolyte-nanoclay organic-inorganic hybrid hydrogel: its self-healing, shape-memory and actuation properties, <i>Journal of Materials Chemistry B: Materials for Biology and Medicine</i> , 7 , 1475-1493.
16	Ata, Souvik, Banerjee, Sovan Lal, Singha, Nikhil. K.* (2019): Self-assembly behavior of POSS based ABA type amphiphilic tri-block copolymer prepared via ATRP, <i>European Polymer Journal</i> , 118 , 10-16.
17	Saha, P., Kather, M. , Banerjee, S.L. , Singha, N.K., Pich, A. (2019): Aqueous solution behavior of thermoresponsive polyzwitterionic microgels based on poly(N-vinylcaprolactam) synthesized via RAFT precipitation polymerization, <i>European Polymer Journal</i> , 118 , 195-204.
18	Ghosh, S., Ganguly, S., Das, P., (...), Das, A.K., Das, N.C. (2019): Fabrication of Reduced Graphene Oxide/Silver Nanoparticles Decorated Conductive Cotton Fabric for High Performing Electromagnetic Interference Shielding and Antibacterial Application, <i>Fibers and Polymers</i> , 20 (6), 1161-1171.
19	Bhattacharya, Koushik; Banerjee, Sovan Lal; Das, Subhayan; Samanta, Sarthik; Mandal, Mahitosh; Singha, Nikhil Kumar*; (2019): REDOX Responsive Fluorescence Active Glycopolymer Based Nanogel: A Potential Material for Targeted Anticancer Drug Delivery, <i>ACS Applied Bio Materials</i> , 2 (6), 2587-2599.
20	Banerjee, Sovan Lal; Potluri, Prasad; Singha, Nikhil K.*; (2019): Antimicrobial cotton fibre coated with UV cured colloidal natural rubber latex: A sustainable material, <i>Colloids and Surfaces, A: Physicochemical and Engineering Aspects</i> , 566 , 176-187.
21	Mondal, Prantik; Raut, Sagar K. and Singha, Nikhil K.*; (2018): Thermally Amendable Tailor-made Acrylate Copolymers via RAFT Polymerization and Ultrafast Alder-ene 'Click' Chemistry, <i>Journal of Polymer Science Part A: Polymer Chemistry</i> , 56 (20), 2310-2318.

22	Santha Kumar, Arunjunai R. S.; Roy, Manta; Singha, Nikhil K., (2018): Effect of ionic liquids on the RAFT polymerization of butyl methacrylate, <i>European Polymer Journal</i> , 107 , 294-302.
23	Banerjee, Sovan Lal; Bhattacharya, K., Samanta, S. and Singha, Nikhil K., (2018): Self-healable Antifouling Zwitterionic Hydrogel Based on Synergistic Photo-triggered Dynamic Disulfide Metathesis Reaction and Ionic Interaction, <i>ACS Applied Materials & Interfaces</i> , 10 , 27391-27406.
24	Behera, Prasanta Kumar; Mondal, Prantik and Singha, Nikhil K*, (2018): <u>Self-Healable and Ultrahydrophobic Polyurethane-POSS Hybrids by Diels–Alder “Click” Reaction: A New Class of Coating Material</u> , <i>Macromolecules</i> , 51(13) , 4770-4781.
25	Behera, Prasanta Kumar; Mondal, Prantik and Singha, Nikhil K.*, (2018): Polyurethane by Ionic Liquid Crosslink; A New Class of Super Shape-Memory Like Polymer, <i>Polymer Chemistry</i> , 9 , 4205-4217.
26	Mandal, P., Lal Banerjee, S., Bhattacharya, K., Singha, N.K., (2018): A superparamagnetic metallopolymer using tailor-made poly[2-(acetoacetoxy)ethyl methacrylate] bearing pendant β -keto ester functionality, <i>European Polymer Journal</i> , 103 , 31-39.
27	Ghosh, Sabyasachi; Mondal, Subhadip; Ganguly, Sayan; Remanan, Sanjay; Singha, Nikhil; Das, Narayan Ch. (2018): Carbon Nanostructures Based Mechanically Robust Conducting Cotton Fabric for Improved Electromagnetic Interference Shielding, <i>Fibers and Polymers</i> , 19 , 5, 1064-1073.
28	S Ghosh, S Remanan, S Mondal, S Ganguly, P Das, N Singha, NC Das, (2018): An approach to prepare mechanically robust full IPN strengthened conductive cotton fabric for high strain tolerant electromagnetic interference shielding, <i>Chemical Engineering Journal</i> , 344 , 138-154.
29	Banerjee, SovanLal; Hoskins, Richard; Swift, Thomas; Rimmer, Stephen; Singha, Nikhil K. (2018): A self-healable fluorescence active hydrogel based on ionic block copolymers prepared via ring opening polymerization and xanthate mediated RAFT polymerization, <i>Polymer Chemistry</i> , 9(10) , 1190-1205.
30	Ghosh, S., Ganguly, S., Remanan, S., Mondal, S., Jana, S.,Maji, P.K., Singha, N., Das, N.C. (2018): Ultra-light weight, water durable and flexible highly electrical conductive polyurethane foam for superior electromagnetic interference shielding materials, <i>Journal of Materials Science: Materials in Electronics</i> , 29 (12) 10177-10189.
31	Chakrabarty, A.; Ponnupandian, S.; Kang, Nam-Goo; Mays, Jimmy W. & Singha* Nikhil K. (2018): Designing Superhydrophobic Surface Based on Fluoropolymer–Silica Nanocomposite via RAFT-Mediated Polymerization-Induced Self-Assembly, <i>Journal of Polymer Science, Part A: Polymer Chemistry</i> , 56(3) , 266-275.
32	Suckow, M.; Mordvinkin, A.; Roy, M.; Singha, N. K.; Heinrich, G.; Voit, B.; Saalwächter, K.; Boehme, F. (2018): Tuning the Properties and Self-Healing Behavior of Ionically Modified Poly(isobutylene-co-isoprene) Rubber, <i>Macromolecules</i> , 51(2) , 468-479.
33	Mondal, Prantik; Behera, Prasanta K. and Singha, Nikhil K.*; (2017): Self-healable thermo-reversible functional polymer via RAFT polymerization and ultrafast ‘click’ chemistry using triazolinedione derivative, <i>Chemical Communications</i> , 53(62) 8715-8718.
34	Banerjee, SovanLal; Singha, Nikhil K.*; (2017): A New Class of Dual Responsive Self-healable Hydrogels Based on Core Crosslinked Ionic Block Copolymer Micelle Prepared via RAFT Polymerization and Diels-Alder "click" chemistry, <i>Soft Matter</i> , 13(47) , 9024-9035.

35	Pramanik, Nabendu B.; Mondal, Prantik; Mukherjee, Rabibrata; Singha, Nikhil K.*; (2017): A new class of self-healable hydrophobic materials based on ABA triblock copolymer via RAFT polymerization and Diels-Alder "click chemistry", <i>Polymer</i> , 119 , 195-205.
36	Suckow, M.; Roy, M.; Sahre, K.; Haeussler, L.; Singha, N.; Voit, B.; Boehme, F. (2017): Synthesis of polymeric ionic liquids with unidirectional chain topology by AB step growth polymerization, <i>Polymer</i> , 111 , 123-129.
37	Ata, Souvik; Basak, Shyam; Mal, Dipakranjan; Singha, Nikhil K.*. (2017): Synthesis and self-assembly behavior of POSS tethered amphiphilic polymer based on poly(caprolactone) (PCL) grafted with poly(acrylic acid) (PAA) via ROP, ATRP, and CuAAC reaction, <i>Journal of Polymer Research</i> , 24(2) , 1-13.
38	Mandal, Prithwiraj; Ponnupandian, Siva; Choudhury, Soumyadipand Singha, Nikhil K.*(2017): Tuning Properties and Morphology in High Vinyl Content SBS Block Copolymer, A Thermoplastic Elastomer via Thiol-Ene Modification, <i>Rubber Chemistry and Technology</i> , 550-561 (2017).
39	Bhandari, Subhendu; Singha, Nikhil K.; Khastgir, Dipak (2017): Synthesis of graphene-like ultrathin polyaniline and its post-polymerization coating on nanosilica leading towards superhydrophobicity of composites, <i>Chemical Engineering Journal</i> , 313 , 1302-1310.
40	Singha, Nikhil K.; Pramanik, Nabendu B.; Behera, Prasanta K.; Chakrabarty, Arindam; Mays, Jimmy W. (2016): Tailor-made thermoreversible functional polymer via RAFT polymerization in an ionic liquid: a remarkably fast polymerization process, <i>Green Chemistry</i> , 18 , 6115 - 6122.
41	Behara, Prasanta K.; Usha, K. M.; Guchhait, P. K.; Jehnichen, Dieter; Das, Amit; Voit, Brigitte; Singha, Nikhil K. (2016): A Novel Ionomeric Polyurethane Elastomer Based on Ionic Liquid as Crosslinker, <i>RSC Advances</i> , 6 , 99404-99413.
42	Chakrabarty, Arindam; Ponnupandian, Siva; Naskar, Kinsuk; Singha, Nikhil K.* (2016): Nanoclay Stabilized Pickering Miniemulsion of Fluorinated Copolymer with Improved Hydrophobicity via RAFT Polymerization <i>RSC Advances</i> , 6 , 34987-34995.
43	Pramanik, Nabendu B. and Singha, Nikhil K.* (2016): Amphiphilic Functional Block Copolymer Bearing Reactive Furfuryl Group via RAFT Polymerization; Reversible Core Cross-linked Micelles via Diels-Alder "Click Reaction", <i>RSC Advances</i> , 6 , 2455-2463.
44	Ata, Souvik; Banerjee, Sovan Lal; Singha, Nikhil K. (2016): Polymer nano-hybrid material based on graphene oxide/POSS via surface initiated atom transfer radical polymerization (SI-ATRP): Its application in specialty hydrogel system, <i>Polymer</i> , 103 , 46-56.
45	Ata, Souvik; Dhara, Palash; Mukherjee, Rabibrata; Singha, Nikhil K.*(2016): Thermally amendable and thermally stable thin film of POSS tethered Poly(methyl methacrylate) (PMMA) synthesized by ATRP, <i>European Polymer Journal</i> , 75 , 276-290.
46	Banerjee, Sovan Lal; Khamrai, Moumita; Kundu, P. P.; Singha, Nikhil K. (2016): Synthesis of a self-healable and pH responsive hydrogel based on an ionic polymer/clay nanocomposite, <i>RSC Advances</i> , 6(85) , 81654-81665.
47	Banerjee, Sovan Lal; Khamrai, Moumita; Sarkar, Kishor; Singha, Nikhil K.; Kundu, P. P. (2016): Modified chitosan encapsulated core-shell Ag Nps for superior antimicrobial and anticancer activity, <i>International Journal of Biological Macromolecules</i> , 85 , 157-167.
48	Behera, Prasanta K.; Mandal, Prithwiraj; Maiti, M.; Jasra, Raksh Vir; Singha, Nikhil K. (2016): Insights into the Preparation of Vinyl Polybutadiene via Cobalt-Based Catalyst: Tuning its Properties by Thiol-Ene Modification of Vinyl Group, <i>Rubber Chemistry and Technology</i> , 89 , 2, 335-348.

49	Koiry, Bishnu P.; Ponnupandian, Siva; Choudhury, Soumyadip; Singha, Nikhil K.(2016): Syntheses and morphologies of fluorinated diblock copolymer prepared via RAFT polymerization, <i>Journal of Fluorine Chemistry</i> , 189 , 51-58.
50	Chakrabarty Arindam, Zhang Longhe, Cavicchi Kevin A., Weiss Robert A., and Singha Nikhil K.* (2015): Tailor-made Fluorinated Copolymer/Clay Nanocomposite by Cationic RAFT Assisted Pickering Miniemulsion Polymerization, <i>Langmuir</i> , 31(45) , 12472-12480.
51	Pramanik, Nabendu B. and Singha, Nikhil K.* (2015): Direct functionalization of multi-walled carbon nanotubes (MWCNTs) via grafting of poly(furfuryl methacrylate) using Diels–Alder “click chemistry” and its thermoreversibility, <i>RSC Advances</i> , 5 , 94321-94327.
52	Mandal P., and Singha, Nikhil K.* (2015): Selective atom transfer radical polymerization of 1,2,3,6-tetrahydrobenzyl methacrylate (THBMA) and demonstration of thiol-ene addition reaction in the pendant cycloalkenyl functional group, <i>European Polymer Journal</i> , 67 , 21-30.
53	Kang, Beom-Goo; Pramanik, Nabendu B.; Singha, Nikhil K.*; Lee, Jae-Suk; Mays, Jimmy, (2015): Precise synthesis of thermoreversible block copolymers containing reactive furfuryl groups via living anionic polymerization: the counteraction effect on block copolymerization behavior, <i>Polymer Chemistry</i> , 6 (37) , 6732-6738.
54	Pramanik; N. Nando, G. B.; Singha, Nikhil K.*(2015): Self-healing polymeric gel via RAFT polymerization and Diels-Alder click chemistry, <i>Polymer</i> , 69 , 349-356.
55	Koiry, Bishnu Prasad; Chakrabarty, Arindam; Singha, Nikhil K.*(2015): Fluorinated amphiphilic block copolymers via RAFT polymerization and its application as surf-RAFT agent in miniemulsion polymerization, <i>RSC Advances</i> , 5(20) , 15461-15468.
56	Chakrabarty, Arindam; Singha, Nikhil K.*(2015):Tunable Morphology and Hydrophobicity of Polyfluoroacrylate/Clay Nanocomposite Prepared by in situ RAFT Polymerization in Miniemulsion, <i>Macromolecular Chemistry and Physics</i> , 216(6) 650-661.
57	Mandal P., Choudhury S. and Singha, N. K.* (2014): Acrylic ABA triblock copolymer bearing pendant reactive bicycloalkenyl functionality via ATRP and tuning its properties using thiol-ene chemistry, <i>Polymer</i> , 55 (22) , 5576-5583.
58	Mandal P. and Singha, N. K.* (2014): Tailor-made polymethacrylate bearing bicyclo-alkenyl functionality via selective ATRP at ambient temperature and its post-polymerization modification by ‘thiol-ene’ reaction, <i>RSC Advances</i> , 4(11) 5293-5299.
59	Koiry, B. P.; Singha, N. K.*(2014): “Copper mediated controlled radical copolymerization of styrene and 2-ethylhexyl acrylate and determination of their reactivity ratios.” Frontiers in Chemistry: Polymer Section , 2 , 1-8.
60	Mariappan, Thirumal; Yi, Deqi; Chakraborty, Arindam; Singha, Nikhil K and Wilkie, Charles A (2014): Thermal stability and fire retardancy of polyurea and epoxy nanocomposites using organically modified magadiite, <i>Journal of Fire Sciences</i> , 32 (4) , 346-361.
61	Pramanik, Nabendu B; Haloi, Dhruva J; Bag, Dibyendu S; Singha, Nikhil K* (2014): Thermoreversible Block Copolymer/Clay Nanocomposite via Surface Initiated ATRP (SI-ATRP) and “Click Reaction” in Clay Surface, <i>American Journal of Macromolecular Science</i> , 1(1) 31-45.
62	Chakrabarty, Arindam; Singha, Nikhil K.* (2013): Tailor-made polyfluoroacrylate and its block copolymer by RAFT polymerization in miniemulsion; improved hydrophobicity in the core–shell block copolymer, <i>Journal of Colloid and Interface Science</i> 408 , 66–74.
63	Koiry, B. P.; Singha, N. K*. (2014): Copolymerization of 2,2,3,3,4,4,4-Heptafluorobutyl acrylate with Butyl acrylate via RAFT Polymerization; <i>Journal of Fluorine Chemistry</i> , 165 , 109-115.

64	Singh, Sangita; Guchhait, P K; Chaki, T K and Singha, N. K. (2014): Different Nanofillers based Polyimide filled EPDM Compound for High Temperature Insulation: Structure and Property, <i>American Journal of Macromolecular Science</i> , 1(1) 1-16.
65	Ata, Souvik; Mal, D.R.; Singha, Nikhil K*. (2013): 'Copper Catalyzed Ring Opening Copolymerization of a vinyl Cyclopropane and Methyl methacrylate' <i>RSC Advances</i> 3 , 14486–14494.
66	Pramanik; N. Nando, G. B.; Singha, Nikhil K*. et al (2013): Thermally amendable tailor-made polymer by RAFT polymerization and click reaction, <i>Journal of Polymer Science Part A Polymer Chemistry</i> , 51 , 3365–3374.
67	Sreekumar, P. A.; Elanamugilan, M.; Singha, N. K.; Al-Harhi, Mamdouh A.; De, S. K. (2014): LDPE Filled with LLDPE/Starch Masterbatch: Rheology, Morphology and Thermal Analysis, <i>Arabian Journal for Science and Engineering</i> , 39 (12) , 8491-8498.
68	Singh, Sangita; Guchhait, P K; Chaki, T K and Singha, N. K. (2014): Carbon nanofiber composite with EPDM and polyimide for high temperature insulation, <i>Rubber Chemistry and Technology</i> , 87(4) , 593-605.
69	Mondal, Debasish; Ghosh, S. K. and Singha, N. K. (2014): Preparation of Poly (2-Hydroxyethyl Methacrylate) Microspheres bearing Metronidazole, an Antiprotozoal Drug, <i>Advanced Science, Engineering and Medicine</i> , 6(6) 637-641.
70	Saha C.; Chaki, Tapan, Singha, Nikhil K*. (2013): "Synthesis and Characterization of Elastomeric Polyurethane (PU) and PU/clay Nanocomposites based on an Aliphatic diisocyanate, <i>Journal of Applied Polymer Science</i> , 130 , (5) 3328-3334.
71	Haloi, Dhruba J.; Naskar, Kinsuk; Singha, Nikhil K.*;(2013): "Poly(meth)acrylate Grafted EPDM via Reverse Atom Transfer Radical Polymerization: A Single Pot Process" <i>European Polymer Journal</i> , 49 , (12) 4098-4107.
72	Haloi, Dhruba J.; Ata, Souvik and Singha, Nikhil K. (2014): "Synthesis of Poly(2-ethylhexyl acrylate)/Clay Nanocomposite via In Situ and Surface Initiated-Atom Transfer Radical Polymerization" <i>Adv. Sci. Eng. Med.</i> , (6) 240-245.
73	Haloi, D.J.; Koiry, B. P.; Mandal P. and Singha, N. K. (2013): Synthesis and Characterization of Poly(2-ethyl hexyl acrylate) via ATRP, RATRP and FRP; <i>Journal of Chemical Sciences</i> , 125(4) , 791–797.
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