Department of Polymer Science & Technology

Books, Book Chapters, Review Articles & Monographs

Books

- **Siddaramaiah**, "Practicals in Polymer Science (Synthesis, Qualitative and Quantitative Analysis of Macromolecules)", 2005, CBS Publishers & Distributors, New Delhi, India.

Book Chapters

1. **G. M. Shashidhara,** "Mass transfer in Polymers" in the book entitled 'Polymer Processing Technology', Edited by B R Gupta, Asian Books Pvt. Ltd., 2008. PP 6.1-6.23
2. Joong Hee Lee, Nam Hoon Kim, M.N. Satheesh Kumar and **Siddaramaiah**: 'Surface modification of carbon nanotubes (CNTs) for composites', Chapter 9, of the Book, "Nano and Multi-functional Polymer Composites" Taylor and Francis Group, CRC publication, Broken Sound Parkway N.W. 2009.
3. **AB Hemavathi**, H Umesh Hebbar and KSMS Raghavarao (2011). Reverse micellar extraction of bioactive compounds for food products, in: Enhancing Extraction Processes in the Food Industry, Taylor and Francis Publications. CRC Press. Editors: N Lebovka, E. Vorobiev, F. Chemat. 399-436.
4. M.N. Satheesh Kumar, Z. Yaakob and **Siddaramaiah**: "Biobased Materials in Food Packaging Applications", in the Handbook of Bioplastics Engineering Applications, Ed. Srikanth Pillai, Scrivener Publishing LLC, MA, USA, 2011.
5. **Siddaramaiah**, P.Poomalai and Johnsy George: "Synthesis and properties of ethylene methacrylate (EMA) co-polymer toughened poly(methyl methacrylate) blends", Chapter 5, of the book "Functional Polymer Blends: Synthesis, Properties and Performance", Ed., Vikas Mittal, CRC Press, Taylor and Francis group, USA, ISBN: 9781439856697, 2012, 147-176.
6. **Roopa, S., Nischay, K.S., and Siddaramaiah**: "Effect of thermoset waste powder on cure characteristics, physico-mechanical and swelling properties of natural rubber/styrene

butadiene rubber vulcanizates", book title, "Cost Reduction in Rubber Processing", Ed., Hans-Joachim Graf Publisher: TechnoBiz Communications Co. Ltd., Vol.1, March 2014.

7. Johnsy George, S.N. Sabapathy and **Siddaramaiah**: "Water Soluble Polymer-Based Nanocomposites Containing Cellulose Nanocrystals", Chapter 9, book title is, Eco-friendly Polymer Nanocomposites (Processing and Properties), Advanced Structured Materials, Edited by Vijay Kumar Thakur and Manju Kumari Thakur, Springer Publisher, Vol. 75 (2015), 259-293.
8. Johnsy George, S.N. Sabapathy and **Siddaramaiah**: "Edible Nanocomposite Films Based on Hydroxypropyl Methyl Cellulose Reinforced with Bacterial Cellulose Nanocrystals", Chapter 6, In Micro- and Nanostructured Polymer Systems (from synthesis to applications), Editors- Sabu Thomas, Robert A Shank and Jithin Joy, Apple Academic Press Inc., USA, 2016, 94-100.
9. Johnsy George, S. N. Sabapathy, K. V. Ramana and **Siddaramaiah**: "Bacterial cellulose nanocrystals: Synthesis, characterization and applications", Chapter 6, in Cellulose and cellulose derivatives: Synthesis, modification, nanostructure and applications, Nova publications, 2016, 129-144.
10. **A.B. Hemavathi and Siddaramaiah**, "Food Packaging Applications of polymers" in book, "Encyclopedia of Polymer Applications", Taylor and Francis Publications, 2016.
11. Johnsy George, S.N. Sabapathy and **Siddaramaiah**: "Water Soluble Polymer Based Hybrid Nanocomposites" Chapter 03, in book "Hybrid Polymer Composite Materials-2", Editors- Vijay Kumar Thakur, Elsevier Ltd., 2017.
12. **Roopa, S., and Siddaramaiah**: "Effect of Cenosphere on The Performance of Polyurethane/Polystyrene Interpenetrating Polymer Network Green Composites," in book, "Emergent Research on Polymeric and Composite Materials" Editors – R. Somashekar and Thejas Urs G., IGI GlobalE- Editorial Discovery, Hershey, USA, 2017.
13. K.S. Nithin, Shilpa K.N., S. Sachhidananda, Jagajeevan B.M., and **Siddaramaiah**: "Advances in Polymer Based Piezoelectric systems", Chapter 6, in book, "Emergent Research on Polymeric and Composite Materials" Editors – R. Somashekar and Thejas Urs G., IGI GlobalE- Editorial Discovery, Hershey, USA, 2017.

14. D.V.Gowda, K.S.Nitin, S. Praveen, Bhavya, M.V and **Siddaramaiah**: "Polymers in cosmetics: An overview", Encyclopedia of Polymer Applications, Edited by Mishra, Taylor and Francis Group, New York, USA (Accepted).

Review articles

1. K.H. Basavaraj, George Johnsy, M.A. Navya, R. Rashmi and **Siddaramaiah**: "Biopolymers as Transdermal Drug Delivery Systems in Dermatology Therapy", J. of Critical Reviews in Therapeutic Drug Carrier Systems", 27 (2) (2010) 155-185.
2. Mohd. Shuaib Khan, D.V.Gowda and **Siddaramaiah**: "Gold Nanoparticles: A Paradigm Shift in Biomedical Applications", Advances in Colloid and Interface Science, 199–200 (2013) 44–58.
3. M. Manjunath, Anjali, D. V. Gowda, Praveen Kumar, Atul Srivastava, Riyaz Ali Osmani, Chetan G. Shinde and **Siddaramaiah**: "Guar Gum and Its Pharmaceutical and Biomedical Applications", Advanced Science, Engineering and Medicine, 8, 1–14, 2016.
4. K.N. Shilpa, S. Sachhidananda, K.S. Nithin and **Siddaramaiah**: "Revisiting Powder X-ray Diffraction Technique: A Powerful Tool to Characterize Polymers and their Composite Films", Research & Reviews: Journal of Material Sciences, 4 (4) 2016, P. No., 1-5.

Monographs

Siddaramaiah

1. Testing of Rubbers - Monogram
2. Polymer Science (For DIPI & DIRI Students) – Monogram
3. Introduction to Polymer Composites, PHI, New Delhi (Under preparation).

---ooo---