

List of Publications

In Journals

- [1] **Hazarika, D.** and Karak, N. Waterborne sustainable waterborne sustainable tough hyperbranched aliphatic polyester thermosets. *ACS Sustainable Chemistry & Engineering*, 3(10):2458-2468, 2015.
- [2] **Hazarika, D.** and Karak, N. Biodegradable tough waterborne hyperbranched polyester/carbon dot nanocomposite: Approach towards an eco-friendly material. *Green Chemistry*, 18(19):5200-5211, 2016.
- [3] **Hazarika, D.** and Karak, N. Photocatalytic degradation of organic contaminants under solar light using carbon dot/titanium dioxide nanohybrid obtained through a facile approach. *Applied Surface Science*, 376:276-285, 2016.
- [4] **Hazarika, D.**, Gupta, K., and Karak, Mandal, M., and Karak, N. High-performing biodegradable waterborne polyester/functionalized graphene oxide nanocomposites as an eco-friendly material. *ACS Omega*, 3(2):2292-2303, 2018.
- [5] **Hazarika, D.** and Karak, N. Unprecedented influence of carbon dot@TiO₂ nanohybrid on multifaceted attributes of waterborne hyperbranched polyester nanocomposite. *ACS Omega*, 3(2):1757-1769, 2018.
- [6] **Hazarika, D.** and Karak, N. Bio-based waterborne, tough hyperbranched polyester thermosets as environmentally benign polymeric materials. *Journal of Applied Polymer Science*, 135(41):46738, 2018.
- [7] **Hazarika, D.**, Saikia, D., Gupta, K., and Karak, Mandal, M., and Karak, N. Photoluminescence, self-cleaning and photocatalytic behavior of waterborne hyperbranched polyester/carbon dot@TiO₂ nanocomposite. *ChemistrySelect*, 3(22):6126-6135, 2018.
- [8] **Hazarika, D.** and Karak, N. Nanocomposite of waterborne hyperbranched polyester and clay@carbon dot as a robust photocatalyst for environmental remediation. *Applied Surface Science* 2018 (under review).

In conferences

(Published as abstract)

International

- [1] **Hazarika, D.** and Karak, N. Bio-Based waterborne hyperbranched polyester carbon based nanocomposite with biodegradability attribute for advanced application, 1st

International Conference on Sophisticated Instruments in Modern Research, IIT Guwahati, 30th June-1st July, 2017.

[2] **Hazarika, D.** and Karak, N. Bio-based waterborne hyperbranched polyester carbon-based nanocomposite with biodegradable attribute for advanced applications, International Conference on Advances in Polymer Science & Technology (APA 2017), New Delhi, India, 23rd-25th November, 2017.

[3] **Hazarika, D.** and Karak, N. Sustainable tough waterborne hyperbranched polyester nanocomposite using carbon dot and its nanohybrid through a greener approach for multifaceted applications, Fourth International Symposium on Advances in Sustainable Polymers (ASP 2017), IIT Guwahati, Assam, 8th-11th January, 2018.

[4] **Hazarika, D.** and Karak, N. Functionalized graphene oxide/waterborne hyperbranched polyester nanocomposite: An environmentally friendly catalyst. An international conference in Chemistry (OrganiX 2018), Tezpur University, Sonitpur, 20th & 21st December, 2018

National

[1] **Hazarika, D.** and Karak, N. Bio-based waterborne hyperbranched polyester thermoset, Materials Research Society of India (MRSI) Symposium on Advanced Materials for Sustainable Applications, CSIR-NEIST, Jorhat, 18th-20th February, 2016.

[2] **Hazarika, D.** and Karak, N. Bio-Based carbon dot modified novel biodegradable high performing waterborne hyperbranched polyester thermosetting nanocomposites, 20th CRSI National Symposium, Gauhati University, Guwahati, 2nd-4th February, 2017.