L.D.C. NAYANAJITH

Research Scientist
Materials Technology Section

Qualifications	Bsc. Honors - Chemistry (University of Peradeniya , 2000)
Contacts	**Tel: +**94 011 2373800, Email: nayanajith@iti.lk , cnayanajith@yahoo.com
Specialized Fields	• Rubber and plastic processing technology • Rubber Testing (Latex and Dry rubber products) • Polymer synthesis • Polymer irradiation • Material characterization • Nanotechnology (Photocatalysis, Graphene, etc.) • Dye sensitized solar cells • Industrial Solid Waste Management
Interest Areas	• Development of metal adsorbents and hydrogel using irradiation technology • Development of protocols for polymer products • Testing Laboratory accreditation- ISO 17025 • Use of Nanomaterials for solar cells • Photocatalytic surface coatings
Publications	1. **LDC Nayanajith**, Yuji Ueki and Noriyaki Seko Synthesis of Polylactic acid non-woven fabric based Metal adsorbent with ammine groups. *The second Takasaki Advance Radiation Research Symposium.* 2007. 2. D.A. De Silva, B.U. Hettiarachchi, **L.D.C. Nayanajith,** M.D.Y. Milani and J.T.S. Motha. Development of a PVP/ kappa carrageenan /PEG hydrogel dressing for wound healing application in Sri Lanka. *Journal of the National Science Foundation of Sri Lanka,* 2011 39(1):25-33. 3. *Manoratne C.H., **Nayanajith L.D.C**., Milani M.D.Y., Divyasekar W, Motha J.T.S, Kottegoda I.R.M.* Development of low cost and highly effective self-cleaning, anti-bacterial industrial ceramic tiles. 4. Synthesis and characterization of few-layer graphene from high purity vein graphite. Iresha R. M. Kottegoda, X. Gao, C.H. Manorathne, **L.C.D. Nayanajith**, J-Z. Wang and H-K. Liu, (**2013 Submitted**) **International Communication** **Synthesis and Characterization of Graphite Composites for Application in Lithium ion Batteries and in Solar Cells.** Manoratne C.H, Nayanajith L.D.C., Kottegoda I.R.M. 2012, , International Conference on Chemical Sciences Institute of Chemistry, Sri Lanka, 2012 **June** **Local Communication** Synthesis and characterization of graphene oxide from natural graphite **L.C.D. Nayanajith**. C.H. Manorathne, Iresha R. M. Kottegoda, First National Nanotechnology Conference. 2012.

Patents	Development of Self-cleaning & Anti-Microbial Ceramic Tile. *Manoratne C.H,* ***Nayanajith L.D.C,*** *Motha J.T.S., Kottegoda I.R.M., Milani M.D.Y* Patent No. 15302.*The Registry of Patents and Trade Marks, Sri Lanka*, 2011. Development of highly stable dispersion of TiO_2**.** M.G.M.U.Ismail, C.H.Manoratne, J.T.S.Motha, L.D.C.Nayanajith, A.S.Liyanage **Patent No:**15093. *The Registry of Patents and Trade Marks, Sri Lanka*.
Major Projects Undertaken	1) Synthesis of graphene and graphene composites for photovoltaic applications. (2) Development of self-cleaning tile. (3) Development of wound healing dressing by radiation processing of hydrogel.

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