Curriculum Vitae

Debashish Roy

Address: 6061 Village Bend Drive, Apt. # 1301, Dallas, TX 75206
Telephone: 214 768 7879 (Work)
E-mail: droy@smu.edu

CURRENT POSITION

Postdoctoral research associate under the supervision of Professor Brent Sumerlin, Southern Methodist University, Dallas, Texas

RESEARCH INTERESTS

Design and synthesis of monomers and (co) polymers via controlled/ "living" radical polymerization techniques; Characterizations of (co)polymers; Surface modification; Antibacterial surfaces; Stimuli-responsive (co)polymers for biomedical applications; Polymer-protein bio conjugation; Fast homo/block copolymerization in microwave.

KEY SKILLS AND ATTRIBUTES

- **LEADERSHIP** — I have played the role of advisor to the BSc., MSc. and new Ph.D. students in the lab. This has allowed me to learn most aspects of all the projects in the lab and has provided me with key experience in leadership and project management.
- **TECHNICAL** — I have been exposed to a diverse array of techniques in polymer synthesis and characterization, such as: living free radical, ionic, emulsion and suspension polymerization techniques. I am well versed in the use of UV-Vis, ATR FT-IR, FT-Raman, Microwave, NMR, GPC, SEM, AFM, DLS, DSC and TGA instruments.

EDUCATION

NOV'2003 – JUNE, 2007	Ph.D. in Polymer Chemistry, University of Leeds, Leeds, UK (Supervisor: Professor Sebastien Perrier)
SEP' 2002 – SEP' 2003	Master degree (MSc.), De Monfort University, Leicester, UK
JULY 1992 – DEC 1998	Undergraduate (BSc.), University of Dhaka, Bangladesh
JULY 1989- JULY1991	Higher Secondary Certificate (Grade 12), Government Science College, Dhaka, Bangladesh.
MAR' 1987- MAR' 1989	Secondary School Certificate (Grade 10), Government Science College, Dhaka, Bangladesh.

WORK EXPERIENCE AND TRAINING

JAN' 1999– SEP' 2001

OCT' 2, 2000–OCT '5, 2000	Tech. College), Bangladesh. Job responsibility included teaching (Polymer and Analytical Chemistry), and supervising research projects.
JUNE '19, 2001–JUNE '20, 2001 Lecturer, University of Dhaka (Leather	Techniques of GC/MS, Varian, Wood Dale, Illinois, USA. Training on Total Organic Carbon Analyzer (TOC), Dhaka, Bangladesh.

SCHOLARSHIPS, AWARDS AND MEMBERSHIP

2003-2006	Scholarship to pursue his PhD from the Department of Colour and Polymer Chemistry, University of Leeds, UK
2005	The Macro Group D. H. Richards Memorial Bursary
2005	Associate Member, The Royal Society of Chemistry. UK
2006-	Member, American Chemical Society
2006-	Member, Division of Polymer Chemistry, American Chemical Society

CONFERENCE PRESENTATIONS

6TH-10TH APRIL, 2008 NEW ORLEANS, USA	235th ACS National Meeting Poster Contribution
11TH-12TH APRIL, 2007 NOTTINGHAM, UK	Macro Group's annual meeting for young researchers Poster Contribution
12TH-13TH SEP', 2006 WAKEFIELD, UK	UK Polymer Showcase Poster Contribution
31st JULY-3rd AUG, 2006 WARWICK, UK	International Polymer Conference Oral Contribution
28TH AUG'-1ST SEP', 2005 WASHINGTON D.C., USA	230th ACS Fall Meeting & Exposition Poster Contribution
5TH-8TH JULY, 2005 EDINBURGH, UK	MC7: Functional Materials for the 21st Century Poster Contribution
24TH JUNE, 2005 LIVERPOOL, UK	Macro Group one day meeting (Innovative Polymer Synthesis –From Molecules to Microns) Poster Contribution
13TH -15TH SEP', 2004 QUEEN MARY, UNIVERSITY OF LONDON, UK	Materials Discussion 7: From Molecules to Materials Poster Contribution
7TH-8TH SEP', 2004 WAKEFIELD, UK	UK Polymer Showcase

Poster Contribution

PUBLICATIONS

- **Debashish Roy**, Aman Ullah and Brent S Sumerlin, *Rapid Block Copolymer Synthesis by Microwave-Assisted RAFT Polymerization*, **Submitted in Macromolecules**, **2009.**
- **Debashish Roy**, Jennifer N. Cambre and Brent S Sumerlin, *Future Perspectives in Smart Materials: Recent Advances and New Directions in Stimuli-Responsive Polymers*, **Progress in Polymer Science, Accepted**, **2009.**
- Priyadarsi De, Sudershan R. Gondi, **Debashish Roy**, Brent S. Sumerlin, *Boronic Acid Terminated Polymers: Synthesis by RAFT and Subsequent Dynamic Covalent Self-Assembly,* **Macromolecules, ASAP, 2009**.
- **Roy**, **Debashish,** Semsarilar, Mona, Guthrie, James T., Perrier, Sébastien, *Cellulose modification by polymer grafting: a review*, **Chemical Society Reviews**, **2009**, *38*, 2046-2064.
- **Roy, Debashish,** Cambre, Jennifer N., Sumerlin Brent S. *Triply responsive boronic acid blockcopolymers: Solution self-assembly induced by change in temperature, pH, or sugar concentration,* **Chemical Communications**, **2009**, 2106-2108.
- **Roy, Debashish,** Cambre, Jennifer N., Sumerlin Brent S. *Sugar-responsive Block Copolymers by Direct RAFT Polymerization of Unprotected Boronic Acid Monomers,* **Chemical Communications**, **2008**, 2477-2479.
- **Debashish Roy**, Knapp, Jeremy S, James T. Guthrie and Sébastien Perrier, *Antibacterial Cellulose Fiber via RAFT Surface Graft Polymerization,* **Biomacromolecules**, **2008**, *9*, 91-99.
- **Debashish Roy**, James T. Guthrie and Sébastien Perrier, *Synthesis of Natural-synthetic Hybrid Materials from Cellulose via the RAFT Process,* **Soft Matter**, **2008**, *4*, 145-155.
- Cambre, Jennifer N., **Roy, Debashish,** Gondi, Sudershan R., Sumerlin Brent S. *Facile Strategy to Well-defined Water-soluble Boronic Acid (Co)polymers* , **Journal of the American Chemical Society,** 2007, *129*, 10348-10349.
- **Debashish Roy**, James T. Guthrie and Sébastien Perrier, *Reversible Addition-Fragmentation Chain Transfer (RAFT) Graft Polymerization of 2-(Dimethylaminoethyl) methacrylate onto Cellulose Fiber,* **Australian Journal of Chemistry**, **2006**, *59*, 737-741.
- Tian Tang, Valeria Castelletto, Petros Parras, Ian W Hamley, Stephen M King, **Debashish Roy**, Sébastien Perrier, Richard Hoogenboom and Ulrich S Schubert, *Thermo-responsive Poly(methyl methacrylate)-b-poly(N-isopropyl acrylamide) Block Copolymers Synthesized by RAFT Polymerization: Micellization and Gelation,* **Macromolecular Physics and Chemistry**, **2006,** *207*, 1718-1726.
- Sébastien Perrier, Pittaya Takolpuckdee, Steven Brown, Thomas M. Legge, **Debashish Roy**, Murray R. Wood, Steven P. Rannard, and David J. Duncalf, *Progress in RAFT/MADIX Polymerization.Synthesis, Use, and Recovery of Chain Transfer Agents*, **ACS Symposium: Progress in CLRP**, **2006**, *30*, 438-454.
- **Debashish Roy**, *Controlled Modification of Cellulosic Surfaces via the Reversible Addition- Fragmentation Chain Transfer (RAFT) Polymerization Process*, **Australian Journal of Chemistry**, **2006**, *59*, 229.
- **Debashish Roy**, James T. Guthrie and Sébastien Perrier, Graft Polymerization: *Grafting Poly(styrene) from Ccellulose via Reversible Addition- fragmentation Chain Transfer (RAFT) Polymerization*, **Macromolecules**, **2005,** *38*, 10363-10372.
- **D. Roy**, R. Chen and P. Callaghan, *Study of Bond Strengths of a Water-borne Polyurethane (PU) Adhesive for Shoe Soling Materials,* **Journal of Textile Institute**, **2005,** *96*, 17-19.
- **Debashish Roy**, Pittaya Takolpuckdee, Youliang Zhao, and Sébastien Perrier, *Novel Solid Supported Polymers via RAFT Polymerization,* Polymeric Materials Science and Engineering, **2006,** *94*, 228-229.
- **Debashish Roy**, James T. Guthrie and Sébastien Perrier, *Novel Synthesis of Cellulosic Graft Copolymers by Reversible Addition-Fragmentation Chain Transfer (RAFT) Process*, ACS Polymer Preprint**,** **2005**, *46*, 2.
- **Roy, Debashish,** Cambre, Jennifer N., Sumerlin Brent S. *Controlled Radical Polymerization of Free Unprotected Boronic Acid Monomers by RAFT* , ACS Polymer Preprint, **2008,** *49*, 448.
- Cambre, Jennifer N., **Roy, Debashish,** Gondi, Sudershan R., Sumerlin Brent S. *Boronic Acid Block copolymers Prepared by RAFT Polymerization,* ACS Polymer Preprint, **2008,** *49*, 426.
- Sumerlin Brent S. Cambre, Jennifer N., **Roy, Debashish,** *"Sweet tooth" micelles and other sugar-responsive organoboron block copolymer assemblies* Polymeric Materials Science and Engineering, **2008,** *99*, 180.
- Priyadarsi De, Ming Li, **Debashish Roy**, Brent Sumerlin, *Self-assembly of stimuli-responsive polymer-protein conjugates prepared by RAFT polymerization,* Polymeric Materials Science and Engineering **2009**,*100*, 669-670.
- **Debashish Roy**, Brent Sumerlin, *Microwave-Assisted RAFT polymerization: Block copolymers in the blink of an eye,* Polymeric Materials Science and Engineering **2009**, *100*, 595-596.

REVIEWER OF THE FOLLOWING JOURNALS

- Biomacromolecules
- European Polymer Journal
- Journal of Macromolecular Science, Pure Applied Chemistry

PATENT APPLICATION

- Brent S. Sumerlin, Jennifer N. Cambre and **Debashish Roy**, "**Boronic-acid containing block copolymers for controlled drug delivery**" Patent pending.

REFEREES

Professor Brent S. Sumerlin
Department of Chemistry
Southern Methodist University
3215 Daniel Avenue
Dallas , TX 75275-0314, USA
Telephone: (214)768-8802
Email: bsumerlin@smu.edu

Professor Sebastien Perrier
Director, Key Centre for Polymer Colloids
School of Chemistry
The University of Sydney
Building F11, Eastern Avenue,
NSW 2006, Australia
Telephone: +61 (0)2 9351 3366
Email: S.Perrier@chem.usyd.edu.au

Professor Jim Guthrie
FieldChesapeake-Field Group Professor of
Polymer and Surface Coating Science and Technology
Department of Colour and Polymer Chemistry
University of Leeds, Leeds, LS2 9JT, UK
Telephone: +44 (0) 113 3432934
Email: j.t.guthrie@leeds.ac.uk