



Philip J. Brown, Polymer & Textiles
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Research Interest: [Fiber Based Devices & Formation](#)

Education

1991 Ph.D. Polymer Membranes, University of Leeds, England, UK

1987 BSc. Textile Chemistry, University of Leeds, England, UK.

Professional Experience

2008-present Associate Professor, School of Materials Science and Engineering, Clemson University

2002-2008 - Assistant Professor, School of Materials Science and Engineering, Clemson University

1997-2001 -University Lecturer, School of Textile Industries, University of Leeds, England UK

1995-1997 -Teaching and Research Fellow, (SCOT) Heriot-Watt University, UK

1991- 1995 -Postdoctoral Research Fellow, Department of Colour Chemistry University of Leeds, England UK

1990-1991 -Research Assistant, Department of Textile Industries, University of Leeds, UK

Research

Dr Brown's current research interests include, but are not limited to, the production of photonic fibers, the production and properties of hollow fiber membranes for gas separation, phase inversion and the dry jet wet and wet spinning of fibers, electrospinning of fibers and melt spinning of multi-component materials. Additional interests are in the broader areas of textile chemistry and dyeing & finishing.

For more information about Dr Brown's publications, current research, advising etc., please click on this link: <http://people.clemson.edu/~pjb>

[back to top](#)

Recent Publications

Jennifer S. Kauffman, Brett M. Ellerbrock, Kathryn A. Stevens, Philip J. Brown, William T. Pennington and Timothy W. Hanks., Preparation, Characterization and Sensing Behavior of Polydiacetylene Liposomes Embedded in Alginate Fibers, ACS Applied Materials and Interfaces, May 28, 2009

Kristofer D. Sinclair, Ken Webb and, Philip J. Brown, Capillary Channel Polymer Fibers as Structural Templates for Ligament Regeneration, AATCC, Vol 8, No 12, pp36-40, December 2008

Kristofer D. Sinclair, Ken Webb and, Philip J. Brown, Options for Anterior Cruciate (ACL) Reconstruction, AATCC, Vol 8, No 12, pp32-34, December 2008

Karthik Ramaratnam, , Swaminatha K. Iyer, Mark Kinnan, George Chumanov Phillip J. Brown* and Igor Luzinov* "Ultrahydrophobic Textiles Using Nanoparticles: Lotus Approach, Journal of Engineered Fibers and Fabrics, Volume 3, Issue 4, pp 1-14, 2008

Ji-ping Yang and Philip J. Brown., "Preparation of Asymmetric Polyetherketone Flat and Hollow Fiber Membranes for Gas Separation Using Acetic Acid Based Coagulants". Chinese Journal of Polymer Science 2008, (3) : 263-273 ISSN: 0256-7679 CN:11-2015/O6

Cox C., Larzelere J and Brown P.J., Simulation of C-CP Fiber_Based Air Filtration, Journal of Engineered Fibers and Fabrics, Volume 3, Issue 2, pp 1-6, 2008

Karthik Ramaratnam, Swaminatha K. Iyer, Mark K. Kinnan, George Chumanov, Phil Brown, and Igor Luzinov, Ultrahydrophobic Textiles: Lotus Approach, AATCC, Vol 8, No. 1 pp 42-47 (January 2008)

Yang J., and Brown P.J., "Highly gas permselective polyetherketone hollow fibre membranes using aqueous sulfuric acid solution as coagulant" e-Polymers no 076, pp 1-12 July (2007)

M. Mignanelli, K.Wani, J. Ballato, S. Foulger and P. Brown "Polymer microstructured fibers by one-step extrusion", Optics Express 14th May 2007, Vol 15, No 10, pp 6183-6189, May (2007)

Matthew D Phaneuf, Martin J Bide, Adwait Bachuwar, Max Mignanelli and Philip J Brown, "Production and Selected Properties of Electrospun Poly(ethylene terephthalate) Nanofibers", AATCC, pp 40-45, March 2007

R. Kenneth Marcus, D. Seth Fornea, Dwella M. Nelson, Rayman D. Stanelle, Christine M. Straut, and Philip J. Brown, "Capillary-Channeled Polymer (C-CP) Fibers: A Flexible Platform for Diverse Liquid-Phase Separations", Anal. Chem., submitted for publication (2007)

Stanelle R. J., Mignanelli M., Brown P.J., Brown and Marcus, R.K., Capillary-Channeled Polymer (C-CP) Fibers as a Stationary Phase in Microbore High Performance Liquid Chromatography Columns, Analytical and Bioanalytical Chemistry, Vol. 384, No. 1, pp250-258, (January 2006).

Brown P.J., and Baker D.A., Production of Crosslinked PET Nanofiber/Microfiber Structures via Electrospinning in Polymeric Nanofibers, Ed Reneker D.H., and Fong H., ACS symposium series 918, Oxford University Press, Washington DC, pp173-187, (January 2006).

Porter, J.J., Brown P.J., and Malphrus J., Influence of pH on the rejection of salts and ionic dyes by microfilters, Desalination, Desalination and the Environment, Vol. 184, (1), pp23-35, (November 2005)

15. Brown P.J., and Baker D.A., Crosslinked Electrospun PET Webs AATCC, Vol.5, No 7, pp28-33, (July 2005)

Nelson, D.M., Stanelle, R. J., Brown P.J., Marcus, R.K., Capillary-Channeled Polymer (C-CP) Fibers: A Novel Platform for Liquid Phase Separations, American Laboratory, Vol. 37, No. 13, pp250-258, (June 2005)

17. K.A Stevens and P. J. Brown, The Characterisation and Production of Poly (Ethylene Terephthalate) Polymers and Fiber from Titanium Catalysts, AATCC, Vol. 5, No. 3, pp17-20 (March 2005)

Yang J., Burkinshaw S., Zhou J., Monkmann A.P.*, and Brown P.J.*, "Fabrication of 2-Acrylamido-2-methy-1-propanesulfonic Acid-Doped Polyaniline Hollow Fibers." Advanced Materials, Vol. 15, (13), pp1081-1084, (2003)

Brown, P.J., Nobbs, J., and Sultan, M., "In-line monitoring of transparent liquids using a colour cell", Surface Coatings International, Part B, Vol. 85, pp49-54, (March 2002)

20. Brown, P.J., Nobbs, J., and Sultan M., "Crosslinking of acrylic fibers with hexandiol and pentaerythritol", AATCC Review, Vol. 2, pp46-50, (March 2002)

Recent Awards

The J. William Weaver Paper of the Year Award

Capillary Channel Polymer Fibers as Structural Templates for Ligament Regeneration," written by Philip J. Brown, Kristofer D. Sinclair, and Charles Kenneth (Ken) Webb, and published December 2008, has been selected as the best paper published in the peer reviewed journal of the AATCC Review in 2008. The J. William Weaver Paper of the Year Award will be presented at March 10-12, during AATCC 2009 International Conference (IC) in Myrtle Beach, S.C., USA.