Curriculum Vitae

Dr Stuart J Rowan B Sc (Hons) PhD

Date of Birth 16 October 1969 **Nationality** British
Place of Birth Edinburgh/Scotland (US Green card)

Address: Department of Macromolecular Science and Engineering
Case Western Reserve University
2100 Aldelbert Road **Tel:** 216 368 4242
Cleveland, OH 44106-7202, USA **Fax:** 216 368 4202
e-mail: stuart.rowan@case.edu **:** **Website:** http://supramolecular.case.edu

Education and Academic Career

Full Professor of Macromolecular Science and Engineering, CWRU	2008-
Secondary Appointment: Associate Professor of Biomedical Engineering, CWRU	2007-
Secondary Appointment: Associate Professor of Chemistry, CWRU	2006-
Research Appointment Louis Stokes Medical Center, VA Hospitals, Cleveland	2006-2008
Associate Professor of Macromolecular Science and Engineering, CWRU	2005-2008
Assistant Professor of Macromolecular Science and Engineering, CWRU	1999-2005

Postdoctoral Research Fellow University of California Los Angeles: 1998/99
Supervisor: Prof. J. F. Stoddart

Postdoctoral Research Associate University of Cambridge – UK: 1994/98
Supervisor: Prof. J.K.M. Sanders

Postgraduate Student (University of Glasgow – UK): 1991/94
Supervisor: Dr D.D. MacNicol ***PhD Degree Awarded:*** 1995
Undergraduate Student (University of Glasgow – UK): 1987/91
Chemistry (Four Years) BSc First Class Honours 1991

Current Research Areas: Supramolecular Materials Science

- Utilization of Supramolecular Chemistry and Non-Covalent Interactions in Polymer Science:
  The Investigation of Nucleobase-Containing Polymers: Self-healing materials
  Metal Ligand Chemistry in Polymers: Sensor materials and Photo-healing materials
  Nano-patterning of surfaces
- Bioactive polymers: Adaptive Nanocomposites for Cortical Implants and Bioactive Gels
- Reversible Covalent Chemistry as a Route Toward the Construction of Novel Polymer Architectures: Polycatenanes and Interwoven Polymers.

Publications: > 75; H-index 26
Supervised Researchers: Graduate students: 9 current (17 total); Post docs: 2 current (10 total)
Research Funding Total: > $4.5 million as PI

Honors and Awards

Case School of Engineering Research Excellence Award	2008
Mortar Board Case Chapter "Top Prof"	2006
Case School of Engineering Teaching Recognition Award	2004-2006
NSF CAREER Award	2002/07
Research Associate of Girton College, Cambridge	1996
MRSC CChem	1996
Loudon Scholarship, Glasgow University	1991/94

Curriculum Development and Teaching Experience

Case Western Reserve University

Classes:

Lecturer "Polymers Plus; Self Assembly and Nanomaterials" (EMAC 410)	2008-
Lecturer "Polymer Foundation Course: Organic Chemistry" (EMAC 401)	2007-
Lecturer "Polymer Chemistry and Industry" (EMAC 370)	2005-
Research Advisor "Freshman Research" (EMAC 125)	2003-
Lecturer "New Polymer Systems" (EMAC 690)	2003-
Lecturer "Structure of Biological Materials" (EBME/EMAC 303)	2002-
Lecturer "Functional and Reactive Polymers" (EMAC 570)	2001-2006
Lecturer "Polymer Synthesis Course" (EMAC 470)	1999-2006
Lecturer "NMR Characterization Class" (EMAC 678)	2001-2006

Other Educational Lectures:

Summers Research Experience for Undergraduates Lecture Series:	
"Supramolecular Polymers: A New Paradigm in Polymer Chemistry"	2004
Teaching Assistant Training:	
"How to Become a Professor"	2002
Meet the Faculty:	
"500 Years of Plastics: The Development of Polymers that Dominate your Life"	2001-

School of Science and Engineering, Osaka University, Japan

Supramolecular Chemistry (8 hours)	2003

Petroleum and Petrochemical College, Bangkok, Thailand

Graduate Course: Polymer Synthesis (30 hours)	2002

University of California – Los Angeles

Graduate Course: Supramolecular Chemistry in Polymer Systems (3 hours)	2000
Supervision of two Undergraduate Summer Research Students	1998/99

University of Cambridge

Fitzwilliam College Tutor	1996/97
Supervision of Part II Project Students	1995/97
Tuition of First, Second and Third Year Undergraduate Students	1995/97

University of Glasgow

Supervision of Seven Final Year Project Students	1991/94
Tutorials for PhD Chemists	1993
Tuition of First, Second and Third Year Undergraduate Students	1991/93

Researchers and Students

Research Advisor of Research Associates (10):

Dr Liming Tang	*Photohealable Polymers* (2009-)
Dr Lorraine Hsu	*Electroactive Nanocomposites* (2009-)
Dr John Bosco Stanislaus	*Structure Property Relationships of Alkyl cellulose* (2007)
Dr Jeff Capadona	*Biomimetic Stimuli Responsive Nano-composites* (2005-2008)
Dr Jihzu Jin	*Metallo-Supramolecular Polymers* (2005)
Dr Daniel Knapton	*Organic/Inorganic High Temperature Materials* (2004-2006)
Dr Param Iyer	*Conjugated Metallo-Supramolecular Polymers* (2003-04)
Dr Manirul Islam	*Synthesis of New Linear Ethylene-Vinyl Chloride Copolymers* (2001)
Dr Hong-Li Yang	*ROMP as a Route to Ethylene-Vinyl Chloride Copolymers* (2000-01)
Dr Ayman Ibrahim	*Synthetic Methods in Polymer Chemistry* (2000)

Research Advisor of Graduate Students (17):

Amanda Way (2008-)	*Tissue Engineering Scaffolds using RAFT Polymerizations*
Rudy Wojtecki (2007-)	*Molecular Actuators*
Kadhiravan Shanmuganathan (2006-)	*Mechanically Adaptable Nanocomposites* (50% C. Weder)
Adriane Miller (2006-)	*Metallo-Supramolecular Polymers, Architectures and Catalysts*
Justin Kumpfer (2006-)	*Self-Assembly in Polymeric Nanolayers*
Lauren Buerkle (2006-)	*Peptide Surfactant and Guanosine Gels*
Mark Burnworth (2005-)	*High Temperature Stable Metal-containing polymers* (50% C. Weder)
Justin Fox (2005-)	*Self-assembly for Nano-patterning and self-healing polymers*
Blayne McKenzie (2004-)	*Metallo-Supramolecular Polymers and Architectures*
Wengui Weng (2004-)	*Characterization of Metallo-Supramolecular gels* (50% A. Jamieson)
Aryavarta Kumar (PhD2007)	*Surface Self-Assembly of PNA Materials* (50% R. Marchant, BME)
Christopher Singleton (M.S. 2005)	*Dynamic Chemistry as a Route to Complex Architectures*
Shaosheng Dong (PhD 2004)	*Responsive Liquid Crystalline Polymers and Materials* (50% A. Jamieson)
Sona Sivakova (PhD 2005)	*Supramolecular Polymers from Nucleobase Terminated Monomers*
J. Benjamin Beck (PhD 2005)	*Metallo-Supramolecular Polymers, Gels and Architectures*
Phiriyatorn Suwanmala (PhD 2003)	*Nucleobase-Induced Self-Assembly of Low-Molecular Weight Macromolecules*
Papinporn Chutayothin (PhD 2001)	*Understanding the Mechanism of Polybenzoxazine Formation* (50% H. Ishida)

Research Advisor of Undergraduate Students (28):

Alyssa Rassi (freshman, Wesleyan, 2009): Synthesis of tetravalent ligand monomers
Noel Esenwa (Junior, SUNY Fredonia: 2009) Triblock copolymer via RAFT polymerizations
Lea Cross (Macro: Freshman: 2008-) Pyrene end capped polymers
Christian Haws: (Penn State Erie: 2008) *Synthesis of Side Chain Ligand Containing Polymers*
Wesley Clark (Macro: Freshman: 2007) *Functionalization of Cellulose Nano-whiskers*
Brendan McGrail (Macro: Junior: 2007-): *New Organometallic Sensors*
Jonathon Weiss (Macro: Freshman: 2007-): *Supramolecular Polymers as Re-healable Plastics*

Sarah Pace (Macro, Junior, 2007-): *New Guanosine Based Gels*
Brandon Wenning (Macro: Freshman 2007-) *New Hydrogen Bonding Telechelic Polymers*
Jane Lindborg (University of Puget Sound: 2006) *New Guanosine Based Gels*
Jessica Knoll (University of Dayton: 2006) *New Organometallic Sensors*
Meghan Gallagher (Macro: Freshman: 2006-) *New Asymmetric Metal ion Binding Motifs*
Erika Ruiz (Biology: Freshman: 2005) *New Organometallic Sensors*
Lauren Buerkle (BME, Senior, 2005-2006) *Peptide Surfactants*
Amanda Kamp (Carnegie-Mellon, 2005) *Synthetic Methods Toward Interwoven Polymers*
Ryan Tomlinson (BME: Freshman, 2005) *Studies on Metal-Ligand Binding*
Brent Reed (Macro: 2004) *Guanosine Gels*
Pamela Knight (Rochester Inst. Tech: 2004) *Nucleobase-Induced Self-Assembly*
Eric Giles (Macro: Freshman-Senior: 2004-2007) *Rigid-Rod Metallo-Supramolecular Polymers*
Robert Bowers (Chem: Freshman: 2004) *Liquid Crystalline Hyperbranched Polymers*
Katherine Finlay (Macro: Freshman 2004) *Studies on Metal-Ligand Binding*
Nan Tian (BME: Freshman: 2004-2005) *Complex Porphyrin Architectures*
Jessica Chen (Bio: Freshman: 2003) *Studies on Metal-Ligand Binding*
J. Casey Johnson (Macro: Freshman-Senior: 2003-) *Controlling Nano-particle Self-Assembly*
Jeremy Mark (Mater. Sci: 2003) *Studies Toward the Synthesis of Metallo-Catenanes*
Chung-Y. Koh (BME: 2003-2004) *Nucleobase-Induced Self-Assembly of Poly(THF) Oligomers*
Jennifer M. Ineman (Chem: 2003) *Metallo-Supramolecular Polymers*
Clare Rademaker (2002, George Mason Uni.) *Studies Toward the Synthesis of Metallo-Catenanes*
Charles Budde (Chem. Eng.2002) *ROMP as a Route to Ethylene Copolymers*
Naomi Sanabria (BME: 2002) *Toward the Synthesis of Nucleobase Terminated Polymers*
Ricardo Torres (Macro: 2001) *Hyperbranched Polymers for Membrane Applications*

Research Advisor of High School Students (6)
Daniel DeGennaro (Parma High School) *Metallosupramolecular elastomers*
Karis Tzeng (Hathaway Brown: 2006-) *New Binding Motifs for Metallo-Supramolecular Polymers*
Chanita Carter (Glenvale High School: 2006-) *New Bioactive Gels*
Erin Schikowski (Hathaway Brown: 2005-2006) *New Binding Motifs for Metallo-Supramolecular Polymers*
Sarah Biggar (Hathaway Brown: 2003-2004) *Studies on Metallo-Supramolecular Polymers*
Maria Donaldson (Gilmour Academy: 2004) *Studies on Nucleobase-Containing Polymers*

Student Awards and Recognition:

J. Ben Beck:
2004 Bayer Corporation Fellowship for Excellence in Graduate Study in Macromolecular Science awarded by the *Bayer Corporation* to the best graduate student in our department each year.
2004 YCC Excellence in Graduate Study Award from the Cleveland ACS Division.
2004 Excellence-in-Graduate Polymer Science Research Symposium ACS Polymer Division
Lauren Buerkle:
2007 Youngish Giants of Chemistry, Edinburgh Scotland Third Place Poster Prize
2006-2009 NSF Graduate Fellow
Blayne McKenzie:
2006 ACS Division of Polymer Chemistry Biennial Meeting – *"Top Poster"*
Eric Giles: (Undergraduate mentored by Ben Beck and Chris Singleton)
First Prize 2004 INSPIRE (Interstate Network of Science Programs Integrating Research and Education).

Erin Schikowski: (High school student mentored by Blayne McKenzie)
2006 - Hathaway Brown School 8th Annual Poster Session: Intel ISEF (International Science and Engineering Fair) affiliated.
1. Air Force Award for Excellence in Science Research (1 of 16 awards given out by the USAF for general excellence at the session)
2. Most Outstanding Eleventh Grade Exhibit in Computer Science, Engineering, Physics, or Chemistry (Yale Science & Engineering Association, Inc.)
CHEM 13 NEWS Exam (Administered by U. of Waterloo, Canada) 125th out of 3400 Internationally (Top 5%)
2007 – Intel Science Talent Search-Finalist (1 of 40 Finalists, Chosen from 1705 entrants)
Siemens Westinghouse Competition Semifinalist Status (2006-2007) (1 of 300)

Outreach to the Community

ASM National Materials Summer Camp	2007
Polymer Envoys: Research for Inner City Students	2006-
Elementary School Polymer Days at Lomond Elementary, Shaker Heights	2006-
Laural High School, Shaker Heights, Polymer Science Day	2005-
Martin Luther-King Discovery Day (At the Cleveland Museum of Natural History)	2004-
Representing Polymers (with the Cleveland Institute of Art)	2004-
Outreach Research Programs with Local High Schools	2003-
Judge for the INTEL International Science and Engineering Fair, Cleveland	2003
Judge for the National Engineers Week Future City Competition, Columbus	2002
Polymer Science Days (with the Cleveland Museum of Natural History)	2002-

Current and Recent Academic Collaborators

Prof. Eric Baer, Case Western Reserve University, Department of Macromolecular Sci. and Eng., Cleveland OH, USA

Prof. Clemens Burda, Case Western Reserve University, Department of Chemistry, Cleveland OH, USA

Prof. Anne Hiltner, Case Western Reserve University, Department of Macromolecular Sci. and Eng., Cleveland OH, USA

Prof. Don Feke, Case Western Reserve University, Department of Chemical Engineering, Cleveland OH, USA

Prof. Alex Jamieson, Case Western Reserve University, Department of Macromolecular Sci. and Eng., Cleveland OH, USA

Prof. Jerome Lando, Case Western Reserve University, Department of Macromolecular Sci. and Eng., Cleveland OH, USA

Prof. Ica Manas, Case Western Reserve University, Department of Macromolecular Sci. and Eng., Cleveland OH, USA

Prof. Roger Marchant, Case Western Reserve University, Department of Biomedical Engineering, Cleveland OH, USA

Prof. Rolfe Petschek, Case Western Reserve University, Department of Physics, Cleveland OH, USA

Prof. Roger D. Quinn, Case Western Reserve University, Department of Mechanical and Aerospace Engineering, Cleveland OH, USA

Prof. Charles Rosenblatt, Case Western Reserve University, Department of Physics, Cleveland OH, USA

Prof. Kenneth D. Singer, Case Western Reserve University, Department of Physics, Cleveland OH, USA

Prof. Dustin J. Tyler, Case Western Reserve University, Department of Biomedical Engineering, Cleveland OH, USA

Prof. Chris Weder, Case Western Reserve University, Department of Macromolecular Sci. and Eng., Cleveland OH, USA

Prof. Darrin Pochan, University of Delaware, Department of Material Science, Delaware, USA

Prof Michael Mackay, Michigan State University, Department of Chemical Engineering, East Lansing, USA

Prof Dennis W. Smith, Clemson University, Department of Chemistry, Clemson, USA

Prof. Howard Colloquon, Department of Chemistry, University of Reading, UK

Prof. Wayne Hayes, Department of Chemistry, University of Reading, UK

Prof. Marty Pagel, Case Western Reserve University, Department of Biomedical Engineering, Cleveland OH, USA

Prof. Hiroshi Nishihara, Department of Chemistry, School of Science, The University of Tokyo, Japan

University Service

Chair of the CWRU Materials Alliance	2009-
CSE Budget Committee (Vice Chair)	2008
Chair of the CSE Research Committee	2007-2008
Chair of the Macromolecular Science Graduate Curriculum Committee	2006-2007
Chair of the CSE Research Committee	2005-2006
Macro Rep for the Case Binary program	2005-
SOURCE Advisory Board	2005-
Research ShowCASE Steering Committee	2005
Macromolecular Sci. and Eng. Vision Committee	2004-2005
Academic Advisor to Undergraduates	2003-
Member of the Undergraduate Committee, Macromolecular Science	2003-2006
Member of the Advisory Committee for EMAC 145	2003-
Member of the Dean's Committee on the Advanced Material's Institute	2003-2004
Member of the CaseShowCase Day planning Committee	2002
Organized "Polymer Science in Biotechnology" for the "Enhancing the Biotechnology Sector in NE Ohio" Summer Intern Program	2002
Dean's Advisory Group on Recruitment (DAGOR), Case School of Engineering	2001-2002
Macromolecular Sci. and Eng. Faculty Search Committee	2001
Organized the *Get Connected with Case* Open Days for Macro. Department	2001-
Director, Macromolecular Science and Eng. NMR and MS Instrument Facility	2000-
Faculty Representative for Delta Upsilon Fraternity	2000-
Member of the Research Committee to the Faculty Senate	2000-2003
Member of the Share the Vision Committee	2000-2002
Member of the Graduate Committee, Macromolecular Science	2000-2003
Member of PhD, Masters and Oral Thesis Committees: (> 50) in Macromolecular Science, Chemistry and Biomedical Engineering	1999-
Member of the Safety and Facilities Committee, Macromolecular Science	1999-2003
Monthly Safety Inspections of Kent Hale Smith	1999-2003
Development of an Information Kiosk, Kent Hale Smith	1999-2001

Professional Societies, Activities and Service

Chair Polymers East Gordon Research Conference	2011
Vice Chair Polymers East Gordon Research Conference	2009
Co-Organizer 8th US-German Polymer Symposium (Mass, US)	2009
Member of the Editorial Board of the Journal of Materials Chemistry	2009
Member of the Editorial Board of the J. Macromolecular Sci, Pure & Applied Chem.	2008-
Co-Organizer ACS POLY: Stimuli-Responsive Materials (New Orleans)	2008
Site visit team member for NSF International Materials Institute	2007
Alternate Councillor for ACS PMSE Division	2007-
Member of the Editorial Advisory Board of Macromolecules	2007-
Co-Organizer ACS ORG: The Chemistry of the Mechanical Bond and Beyond (Boston)	2007
Co-Organizer ACS POLY: Symposium in Honor of Sir Fraser Stoddart (Boston)	2007
Co-Organizer ACS PMSE: Nanoparticles and Nanomaterials (Chicago)	2007
Assistant Editor for the RSC Monographs in Supramolecular Chemistry	2006-
Gordon Conference, Polymer (East), Session Chair	2005
NSF-Workshop on Physical Organic Chemistry	2003
Member of ACS Division of Organic Chemistry	2003-
Gordon Conference on Fuel Cells, Session Chair	2002
NASA review panel on Biomaterials (Washington, D.C.)	2002
Scribe for the NSF-Workshop on Fuel Cells (Washington D.C.)	2001
Member of ACS Division of Polymeric Materials: Science and Engineering	2000-
Member of ACS Division of Polymer Chemistry	1999-
Member of the American Association for the Advancement of Science (AAAS)	1999-
Member of the American Chemical Society (ACS)	1998-
Literature Scanner: Current Opinions in Chemical Biology	1997-98
Member of the Royal Society of Chemistry (MRSC CChem)	1994-
Graduate of the Royal Society of Chemistry (GRSC)	1991-94

Reviewer for Science, Journal of the American Chemical Society, Macromolecules, Journal of Organic Chemistry, Organic Letters, Chemical Communications, Composite Materials, Journal of Polymer Engineering, Progress in Polymer Science, Journal of Polymer Science: Part A; Polymer Chemistry, Angewandte Chemie, Chemistry: A European Journal, Australian Journal of Chemistry, European Journal of Organic Chemistry, Polymer, Organic and Biomolecular Chemistry, Canadian Journal of Chemistry, Polymer International, Journal of Materials Chemistry, Journal of Physical Chemistry, Journal of Applied Polymer Science.

Reviewer for NSF, ACS-PRF, Swiss National Science Foundation, NASA, Army Research Office, Israeli Science Foundation, Australian Science Foundation, EPSRC, Leverhulme Trust.

Refereed Papers

Papers from Case Western Reserve University

81. Shanmuganathan, K.; Capadona, J.R.; Rowan S.J.; Weder, C. **Bio-inspired mechanically-adaptive nanocomposites derived from cotton cellulose whiskers** *J. Mater. Chem.*, in press.
80. Kumpfer, J.; Jin, J.; Rowan, S.J. **Stimuli-responsive europium-containing metallo-supramolecular polymers** *J. Mater. Chem.*, in press.
79. Burattini, S.; Colquhoun, H.M.; Fox, J.D.; Friedmann, D.; Greenland, B.W.; Harris, P.J.F.; Hayes, W.; Mackay, M.E.; **Rowan, S.J. A Self-Repairing, Supramolecular Polymer System: Healability as a Consequence of Donor-Acceptor π–π-Stacking Interactions** *Chem. Comm.* In press.
78. Weng, W.; Li, Z.; Jamieson, A.M.; **Rowan, S.J. Effect of monomer structure on the gelation of a class of metallo-supramolecular polymers** *Soft Matter* **2009**, *in press.*
77. Shanmuganathan, K.; Capadona, J.R.; **Rowan, S.J.**; Weder, C. **Biomimetic Mechanically Adaptive Nanocomposites** *Prog. Polym. Sci.* **2009**, *in press.*
76. Fox, J.D.; **Rowan, S.J. Supramolecular Polymerizations and Main-Chain Supramolecular Polymers** *Macromolecules*, **2009**, *42*, 6823-6835.
75. Rowan, S.J. **Polymers with Bio-inspired Strength** *Nature Chemistry* **2009**, *1*, 347-348.
74. Buerkle, L.E., Li, Z., Jamieson, A.M.; **Rowan, S.J. Tailoring the Properties of Guanosine-Based Supramolecular Hydrogels** *Langmuir* **2009**, *25*, 8833-8840.
73. Capadona, J.R.; Shanmuganathan, K.; Trittschuh, S.; Seidel, S.; Rowan, S.J.; Weder, C. **Polymer Nanocomposites with Nanowhiskers Isolated from Microcrystalline Cellulose.** *Biomacromolecules* **2009**, *10*, 712-716.
72. **Rowan S.J. Micelles Make a Living** *Nature Materials* **2009**, *8*, 89-91.
71. Kumar, A.M.S.; Fox, J.D.; Buerkle, L.E.; Marchant, R.E.; **Rowan, S.J. Effect of Monomer Structure and Solvent on the Growth of Supramolecular Nanoassemblies on a Graphite Surface.** *Langmuir* **2009**, *25*, 653-656.
70. Weng, W.; Li, Z.; Jamieson, A.M.; **Rowan, S.J. Control of Gel Morphology and Properties of a Class of Metallo-Supramolecular Polymers by Good/Poor Solvent Environments** *Macromolecules* **2009**, *42*, 236-246.
69. L. Bava, L.; D.L. Feke, D.L. Manas-Zloczower, I.; **Rowan, S.J. Temperature Controlled Dispersion of Poly(*N*-Isopropyl Acrylamide) Treated Silica Clusters** *Rubber Chem. Technol.* **2008** *81*, 809-820.
68. Mckenzie, BM.; Rowan, S.J. **Metallosupramolecular polymers, networks, and gels.** *Molecular Recognition and Polymers* **2008**, 157-178.
67. McKenzie, B.M.; Miller, A.K.; Wojecki, R.J.; Johnson, J.C.; Burke, K.A; Tzeng, K.A.; Mather, P.T.; **Rowan, S.J. Improved synthesis of functionalized mesogenic 2,6-bisbenzimidazolylpyridine ligands** *Tetrahedron* **2008**, *64*, 8488-8495.
66. Burnworth, M.; Mendez, J.D.; Schroeter, M.; **Rowan, S.J.**; Weder, C. **Decoupling Optical Properties in Metallo-Supramolecular Poly(*p*-phenylene ethynylene)s** *Macromolecules* **2008** *41*, 2157-2163.

65. Capadona, J.R.; Shanmuganathan, K.; Tyler D.J.; **Rowan S.J.**; Weder, C. **Stimuli-Responsive Polymer Nanocomposites Inspired by the Sea Cucumber Dermis** *Science* **2008**, *319*, 1370-1374.
64. Kumar, A.M.S.; Sivakova, S.; Fox, J.D.; Green, J.E.; Marchant, R.E.; **Rowan, S.J. Molecular Engineering of New Supramolecular Scaffold Coatings that Can Reduce Static Platelet Adhesion** *J. Am. Chem. Soc.* **2008**, *130*, 1466-1476.
63. L. Bava, L.; D.L. Feke, D.L. Manas-Zloczower, I.; **Rowan, S.J. Control of Particle Cluster Dispersion using Responsive Polymeric Additives** *J. Coll. Interface Sci.* **2008** *319*, 160-168.
62. **Rowan, S.J.**; Mather, P.T. **Supramolecular Interactions in the Formation of Thermotropic Liquid Crystalline Polymers** *Structure Bonding* **2008**, *128*, 119-149.
61. Capadona, J.R.; van den Berg, O.; Capadona, L.A.; Schroeter, M.; **Rowan S.J.**, Tyler D.J.; Weder, C. **Self-Assembled Nanofiber Templates: A Versatile Approach for the Processing of Polymer Nanocomposites** *Nature Nanotech.* **2007**, *2*, 765-769.
60. Burnworth M., **Rowan S.J.**, Weder C. **Fluorescent Sensors for the Detection of Chemical Warfare Agents** *Chem. Eur. J.* **2007**, *13*, 7828-7836
59. Weng, W.; Jamieson, A.M.; **Rowan, S.J. Structural Origin of the Thixotropic Behavior of a Class of Metallosupramolecular Gels** *Tetrahedron*, **2007**, *63*, 7419-7431.
58. Kumar, A.M.S.; Sivakova, S.; Marchant, R.E.; **Rowan, S.J. Surface-Aided Supramolecular Polymerization: A Route to Controlled Nanoscale (<5 nm) Assemblies** *Small* **2007**, *3*, 783-787.
57. McKenzie, B.M.; **Rowan, S.J. Metallo-Supramolecular Polymers**, *Encylcopedia of Supramolecular Chemistry*, *in press*.
56. Burnworth, M.; Knapton, D.; **Rowan, S.J.;** Weder C. **Metallo-Supramolecular Polymerization: A Route to Easy-To-Process Organic/Inorganic Hybrid Materials** *J. Inorg. Organomet. Polym. Mater.* **2007**, *17*, 91-103.
55. Weng, W.; Beck, J.B.; Jamieson, A.M.; **Rowan, S.J. Understanding the Mechanism of Gelation and Stimuli-Responsive Nature of a Class of Metallo-supramolecular Gels** *J. Am. Chem. Soc.* **2006**, *128*, 11663-11672.
54. Knapton, D.; Burnworth, M.; **Rowan, S.J.;** Weder C. **Fluorescent Organometallic Sensors for the Detection of Chemical Warfare Agent Mimics** *Angew. Chem. Int Ed.* **2006**, *45*, 5825-5829.
53. Burke, K.A.; Sivakova, S.; McKenzie, B.M.; Mather, P.T.; **Rowan, S.J. Effect of Stoichiometry on Liquid Crystalline Supramolecular Polymers Formed with Complementary Nucleobase Pair Interactions** *J. Polym. Sci.: Part A: Polym. Chem.* **2006**, *44*, 5049-5059.
52. Knapton, D.; Iyer, P.; **Rowan, S.J.;** Weder C. **Synthesis and Properties of Metallo-Supramolecular Poly(*p*-xylylene)s** *Macromolecules* **2006**, *39*, 4069-4075.
51. Beck, J. B.; **Rowan, S.J. The Preparation of Metallo-supramolecular Polymers and Gels By Utilizing 2,6-Bis(1'-methyl-benzimidazolyl)pyridine/Metal Ion Interactions** in *Metal-Conatining and Metallosupramolecular Polymers and Materials* Eds. Schubert, U.S.; Newkome, G.R.; Manners, I. ACS Symposium Series 928, Chapter 8, 97-112; American Chemical Society, Washington DC, **2006**.
50. Knapton, D.; Weder C.; **Rowan, S.J. Synthesis and Properties of Metallo-Supramolecular Poly(*p*-phenylene ethynylene)s** *Macromolecules* **2006**, *39*, 651-657.

49. Sivakova, S.; Wu, J.; Campo, C.J.; Mather, P.T.; **Rowan, S.J. Liquid Crystalline Supramolecular Polymers Formed Via Complementary Nucleobase Pair Interactions** *Chem. Eur. J.* **2006**, *12*, 446-456.
48. Sivakova, S.; Bohnsack, D.A.; Suwanmala, P.; Mackay, M.E.; **Rowan, S.J. Utilization of a Combination of Weak Hydrogen Bonding Interactions and Phase Segregation to Yield Highly Thermo-Sensitive Supramolecular Polymers** *J. Am. Chem. Soc.* **2005**, *127*, 18202-18211.
47. **Rowan, S.J. Metallomesogens** *Angew. Chem., Int. Ed.* **2005**, *44*, 4830-4832.
46. Zhao, Y.; Dong, S.; Jamieson, A.M.; Hu, X.; Lal, J.; Nazarenko, S.; **Rowan, S.J. Rheological Properties and Conformation of a Side-Chain Liquid Crystal Polysiloxane Dissolved in a Nematic Solvent** *Macromolecules*, **2005**, 38, 5205-5213.
45. Beck, J. B.; Ineman, J.M.; **Rowan, S.J. Metal/Ligand-Induced Formation of Metallo-Supramolecular Polymers** *Macromolecules*, **2005**, *38*, 5060-5068.
44. Iyer, P.; Beck, J. B.; **Rowan, S.J.**, Weder C. **Synthesis and Optical Properties of Metallo-Supramolecular Polymers**, *Chem. Comm.* **2005**, 319-321.
43. Sivakova, S.; **Rowan, S.J. Nucleobases as Supramolecular Motifs**, *Chem. Soc. Rev.* **2005**, 9-21.
42. Beck, J. B.; **Rowan, S.J. Metal-Ligand Induced Supramolecular Polymerization: A Route to Responsive Materials**, *Faraday Dis.* **2005**, *128*, 43-53.
41. **Rowan, S.J.**; Beck, J.B. **Polymers with Intertwined Suprastructures and Interlocked Structures** in *Supramolecular Polymers* Volume II, Ed. Ciferri, A. Marcel Dekker, New York, **2005**.
40. Zhao, Y.; Beck, J. B.; **Rowan, S.J.;** Jamieson, A.M. **Rheological Behavior of Shear-Responsive Metallo-Supramolecular Gels**, *Macromolecules* **2004**, *37*, 3529-3531.
39. Beck, J.B.; **Rowan, S.J. Multi-Stimuli, Multi-Responsive Metallo-Supramolecular Polymers**, *J. Am. Chem. Soc.* **2003**, 125, 13922-13923.
38. Sivakova, S., **Rowan, S.J. Fluorescent supramolecular liquid crystalline polymers from nucleobase-terminated monomers** *Chem. Commun.* **2003**, 2428-2429.
37. **Rowan, S.J.**; Suwanmala, P.; Sivakova, S. **Nucleobase-Induced Supramolecular Polymerization in the Solid-State** *J. Polym. Sci.: Part A: Polym. Chem.* **2003**, *41*, 3589 – 3596.
36. Stephens, C.H.; Yang, Y.; Islam, M. Chum, S.P.; **Rowan, S.J.**; Hiltner, A.; Baer, E. **Characterization of Polyethylene with Partially Random Chlorine Substitution** *J. Polym. Sci.: Part B: Polym. Phys* **2003**, *41*, 2062-2070.
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34. **Rowan, S.J.**; Stoddart J.F. **Phosphonium Stoppered Rotaxanes: A New Route to the Daisy Chain Polyrotaxanes** *Polym. Advan. Technol.* **2002**, *13*, 777-787.
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Papers from Postdoc. (UCLA)

31. Lowe, J.N.; Fulton, D.A.; Chiu, S.-H.; Elizarov, A.M.; Cantrill, **S.J.; Rowan**, S.J.; Stoddart, J.F. **Polyvalent Interactions in Unnatural Recognition Processes** *J. Org. Chem.* **2004**, 69, 4390-4402.
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26. Perez-Alvarez, M.; Raymo, F.M.; **Rowan**, **S.J.**; Schiraldi, D.A.; Stoddart, J.F.; Williams, D.J. **Binding and Catenane Formation of Methylcarboxy Substituted BPP34C10 Derivatives** *Tetrahedron* **2001**, *57*, 3799-3808.
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22. Ro, S.; **Rowan**, **S.J.**; Pease, A.R.; Cram, D.J.; Stoddart, J.F. **Dynamic Hemicarcerands and Hemicarceplexes** *Org. Lett.* **2000**, *2*, 2411-2414.
21. Ballardini, R.; Balzani, V.; Becher, J.; Di Fabio, A.; Gandolfi, M.T.; Mattersteig, G.; Nielsen, M.B.; **Rowan**, **S.J.**; Raymo, F.M.; Stoddart, J.F.; White, A.J.P.; Williams, D.J. **Tetrathiafulvalene-Naphthalene Cyclophanes: Planar Chirality and *Cis/Trans* Photoisomerization** *J. Org. Chem.* **2000**, *65*, 4120-4126.
20. **Rowan**, **S.J.**; Cantrill, S.J.; Stoddart, J.F. **A New Synthetic Route to Macrocyclic Daisy Chains** *Org. Lett.* **2000**, *2*, 759-762.
19. **Rowan**, **S.J.**; Stoddart, J.F. **Precision Molecular Grafting: Exchanging Surrogate Stoppers in [2]Rotaxanes** *J. Am. Chem. Soc.* **2000**, *122*, 164-165.
18. **Rowan**, **S.J.**; Stoddart, J.F. **Thermodynamic Template-Directed Synthesis of Dynamic Rotaxanes by Imine Exchange** *Org. Lett.* **1999**, *1*, 1913-1916.
17. Cantrill, S.J.; **Rowan**, **S.J.**; Stoddart, J.F. **Thermodynamic Synthesis of [2]Rotaxanes** *Org. Lett.* **1999**, *1*, 1363-1366.
16. **Rowan**, **S.J.**; Cantrill, S.J.; Stoddart, J.F. **Phosphoniuim-Stoppered [2]Rotaxane** *Org. Lett.* **1999**, *1*, 129-132.

Papers from Postdoc. (Cambridge)

15. **Rowan**, **S.J.**; Reynolds, D.J.; Sanders, J.K.M. **Effects of Shape on Thermodynamic Cyclizations of Cinchona Alkaloids** *J. Org. Chem.* **1999**, *64*, 5804-5814.

14. **Rowan**, **S.J.**; Brady, P.A.; Sanders, J.K.M. **Selectivity in Thermodynamic Cyclisations of Cinchona Alkaloids** *Molecular Recognition and Inclusion* **1998**, 483-486.
13. **Rowan**, **S.J.**; Lukeman, P.S.; Reynolds, D.J.; Sanders, J.K.M. **Engineering Diversity into Dynamic Combinatorial Libraries by Use of a Small Flexible Building Block** *New J. Chem.* **1998**, *22*, 1015-1018.
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11. **Rowan**, **S.J.**; Sanders, J.K.M. **Enzyme Models: Design and Selection** *Curr. Opin. Chem. Biol.* **1997**, *1*, 483–490.
10. **Rowan**, **S.J.**; Sanders, J.K.M. **Building Thermodynamic Combinatorial Libraries of Quinine Macrocylces** *Chem. Commun.* **1997**, 1407–1408.
9. **Rowan**, **S.J.**; Hamilton, D.G.; Brady, P.A.; Sanders, J.K.M. **Automated Recognition, Sorting and Covalent Self-Assembly by Predisposed Building Blocks in a Mixture** *J. Am. Chem. Soc.* **1997**, *119*, 2578–2579.
8. **Rowan**, **S.J.**; Brady, P.A.; Sanders, J.K.M. **Synthesis and Kinetic Cyclisation of Quinine-Derived Oligomers** *Tetrahedron Lett.* **1996**, *37*, 6013–6016.
7. **Rowan**, **S.J.**; Brady, P.A.; Sanders, J.K.M. **Structure-Directed Synthesis under Thermodynamic Control: Macrocyclic Trimers from Cinchona Alkaloids** *Angew. Chem., Int. Ed., Engl.* **1996**, *35*, 2143–2145.
6. Brady, P.A.; Bonar-Law, R.P.; **Rowan, S.J.**; Suckling, C.J.; Sanders, J.K.M. **"Living" Macrolactonisation: Thermodynamically-Controlled Cyclisation and Interconversion of Oligocholates** *Chem. Commun.* **1996**, 319–320.

Papers from PhD (Glasgow)

5. Henderson, R.K.; MacNicol, D.D.; McCormack, K.L.; **Rowan, S.J.**; Yufit, D.S. **Decakis(phenylthio)benzophenone: A Representative of a Novel Class of Host Molecule Comprised of Two Linked Persubstituted Aromatic Cores** *Supramolecular Chem.* **1998**, *10*, 27-32.
4. Frampton, C.S.; MacNicol, D.D.; **Rowan, S.J. A New Potential Series of Clathrates: Crystal Structure of Dodecakis(phenoxy)triphenylene** *J. Mol. Structure* **1997**, *405*, 169–178.
3. Henderson, R.K.; MacNicol, D.D.; **Rowan, S.J. Crystal Structure of 1,2-Bis[pentakis(phenylthio)phenyl]ethane** *Acta Crystallogr.* **1996**, *C52*, 210–212.
2. MacNicol, D.D.; **Rowan, S.J. Supramolecular Storage of Reagents** in *Comprehensive Supramolecular Chemistry*, ed., J.L. Atwood, J.E.D. Davies, D.D. MacNicol, F. Vögtle, Volume 10, 417-428, Pergamon: Oxford, **1996**.
1. Frampton, C.S.; McGregor, W.M.; MacNicol, D.D.; Mallinson, P.R.; Plevey, R.G.; **Rowan, S.J. The Synthesis and Structure of the First Persubstituted Anthracene Host: Deca(cyclopentylthio)anthracene** *Supramolecular Chem.* **1994**, *3*, 223–226.

Conference Papers

C24. Knapton, D.; Rowan, S.J.; Weder, C. **Metallosupramolecular conjugated polymers** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2006**, *95*, 28-29.

C23. Burnworth, M.; Knapton, D.; Rowan, S.J.; Weder, C. **Fluorescent organometallic sensors for the detection of chemical warfare agent mimics** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2006**, *95*, 637-638.

C22. Rowan, S.J.; Weng, W.; Jamieson. A.M. **Responsive metallo-supramolecular polymers and gels.** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2006**, *95*, 154-155.

C21. Weng, W.; Beck, J.B.; **Rowan, S.J.**; Jamieson, A.M. **Mechanism of gel formation of metallo-supramolecular polymers** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2006**, *94*, 206-207.

C20. Burke, K.A.; Sivakova, S.; Mather, P.T.; Rowan, S.J. **Liquid crystalline supramolecular polymers formed via complementary nucleobase pair interactions** *Proc. SPIE-Inter. Soc. Optiic. Eng.* **2006**, *6135(Liquid Crystal Materials, Devices, and Applications XI)*, 134-141.

C19. Rowan, S.J.; Sivakova, S. **Self-assembly of nucleobase containing monomers** *Polymer Preprints* **2005**, *46(1)*, 167-168.

C18. Rowan, S.J.; Beck, J.B.; Sivakova, S. **Supramolecular polymeric systems from telechelic macromonomers with noncovalent binding motifs** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2005**, *92*, 124-125.

C17. Nazarenko, S., Lin, J., Dong, S., Olson, B.G. **Rowan, S.J. Solid State Structure, Oxygen Barrier and Mechanical Properties of Polyhydroxylated Dendritic Polymers Cross-Linked with 1,6-Hexamethylene Diisocyanate** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2004**, *91*, 206-207.

C16. Bohnsack, D.A.; Mackay, M.E.; Sivakova, S.; **Rowan, S.J.**; **Telechelic Polymers Having Tunable Properties Due to Bio-Inspired Nucleobase End Groups** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2004**, 91, 992-993.

C15. Beck, J.B., **Rowan, S.J. Understanding the Response Nature of Metallo-Supramolecular Polymer Gels** *Polymer Preprints* **2004**, 45(2), 79-80.

C14. Dong, S.; Zhao, Y.Q.; **Rowan, S.J.;** Nazarenko, S.; Jamieson, A.M. **Induced Smectic Phases in Mixtures of Liquid Crystal Polymers with Low Molar Mass Nematic Liquid Crystal** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2004**, *90*, 812-813.

C13. Zhao, Y.; Dong, S.; Schuel, D.E.; Nazarenko, S.; **Rowan, S.J.**; Jamieson, A.M. **Thermal And Dielectric Behaviors Of Binary Mixtures Of A Side Chain Liquid Crystal Siloxane Copolymer And A Nematic Solvent** *Polymer Preprints* **2004**, *45(1)*, 572-573.

C12. **Rowan, S.J.**; Beck, J.B., Chen, J. **Metal-2,6-Bis(Benzimidazolyl)Pyridine Binding: Towards Metallo-Supramolecular Polymers** *Polymer Preprints* **2004**, *45(1)*, 494-495.

C11. **Rowan, S.J.**; Beck, J.B. **Metallo-supramolecular polymers and gels** *Polymer Preprints* **2004**, *45(1)*, 384-385.

C10. **Rowan, S.J.**; Beck, J.B.; Sivakova, S.; Suwanmala, P. **Molecular Recognition in the Construction of Polymeric Systems** *Polymer Preprints* **2003**, *44(2)*, 478-479.

C9. **Rowan, S.J.**; Beck, J.B.; Ineman, J.M. **Metal/Ligand-Induced Formation of Metallo-Supramolecular Polymers** *Polymer Preprints* **2003**, *44(1)*, 691-692.

C8. **Rowan, S.J.**; Sivakova, S. **Investigation of Nucleobase Assembled Mesogenic Polymers** *Polymer Preprints* **2003**, *44(1)*, 687-688.

C7. **Rowan, S.J.**; Suwanmala, P.; Sivakova, S. **Nucleobase Controlled Supramolecular Polymerization** *Polymer Preprints* **2003**, *44(1)*, 616-617.

C6. **Rowan, S.J.**; Suwanmala, P. **Studies into Nucleobase Controlled Supramolecular Polymers** *Polymer Preprints* **2002**, *43(2)*, 460-461.

C5. Stephens, C.H.; Yang, H.; Islam, M.; **Rowan, S.J.**; Hiltner, A.; Baer E. **Characterization Of Ethylene-Vinyl Chloride-Like Copolymers Synthesized By Ring-Opening Metathesis Polymerization (Romp)** *Soc. Plast. Engin.* **2002**, *60*, 1854-1858.

C4. Chutayothin, P.; Ishida, H.; **Rowan, S.J**. **Investigation of Benzoxazine Initiation Mechanism via Cationic Ring-Opening** *Polymer Preprints* **2001**, *42(2)*, 621-622.

C3. Chutayothin, P.; Ishida, H.; **Rowan, S.J. Cationic Ring-Opening Polymerization of Monofunctional Benzoxazine** *Polymer Preprints* **2001**, *42(2)*, 599-600.

C2. Stoddart, J.F.; **Rowan**, **S.J.**; Chiu, S.-H.; Cantrill, S.J.; Ridvan, L.; Sivakova, S. **Toward Interlocked Polymers Using the Wittig Reaction** *Am. Chem. Soc., Polym. Mater. Sci. Eng. Prepr.* **2001**, *84*, 148-149.

C1. **Rowan**, **S.J.**; Cantrill, S.J.; Stoddart, J.F. *Polymer Preprints* **1999**, *40(2)*, 1119-1120.

Other Presentations of Work

129. Oct 2009 Southern Methodist University, Dallas, Texas
Invited Lecture: Supramolecular Chemistry in Polymeric Systems: From Nanoassemblies to Dynamic Materials

128. Aug 2009 42nd IUPAC Congress and RSC MC9, Glasgow, Scotland
Invited Lecture: Bio-inspired Chemo-mechanical Polymer Nanocomposites

127. July 2009 Gordon Conference on Supramolecules and Assemblies
Invited Lecture: Using Supramolecular Interactions to Access Dynamic Materials

126. May 2009 Chemical Society of Canada, Hamilton, Canada
Invited Lecture: Dynamic Cellulose Nanocomposites

125. May 2009 University of Cincinnati, Cincinnati, Ohio
Invited Lecture: Supramolecular Chemistry in Polymeric Systems: From Nanoassemblies to Dynamic Materials

124. April 2009 University of Michigan, Ann Arbour, Michigan
Invited Lecture: Supramolecular Chemistry in Polymeric Systems: A Route to Responsive Materials

123. March 2009 ACS Spring Meeting, Salt Lake, Utah
Invited Lecture: Toward applications for metallosupramolecular polymers

122. Feb 2009 Smart Coatings, Orlando, Florida
Invited Lecture: Supramolecular Chemistry in Polymeric Systems: Route to Responsive Materials

121. Feb 2009 Texas Tech., Lubbock, Texas
Invited Lecture: Supramolecular Chemistry in Polymeric Systems: Route to Responsive Materials

120. Feb 2009 New York University, New York
Invited Lecture: Supramolecular Materials: From Gels to Self-healing Polymers

119. Dec 2008 Lubrizol, Wickliffe, Ohio
Invited Lecture: Supramolecular Materials: From Re-healable Plastics to Sea Cucumbers

118. Dec 2008 US-Japan Polymer Chemistry Symposium, Awaji Island, Japan
Invited Lecture: Investigating How Supramolecular Interactions Can Influence and Control Polymer Properties

117. Nov 2008 SERMACS, Nashville, Tennessee,
Invited Lecture: *Biomimetic Nanocomposites for Cortical Implants*

116. Oct 2008 Montana State University, Department of Chemistry
Invited Lecture: *Utilizing Supramolecular Chemistry in Polymeric Systems: A Route to Dynamic, Adaptive Materials*

115. Oct 2008 New York University, Department of Chemistry
Invited Lecture: *Supramolecular Chemistry in Polymeric Systems: From Nanoassemblies to Dynamic Materials*

114. Sept 2008 College of Wooster, Department of Chemistry
Invited Lecture: *Supramolecular Polymer Chemistry: A Route to Responsive Materials*

113. Aug 2008 Goodyear, Akron, Ohio
Invited Lecture: *Supramolecular Polymers for Flexible Healable Materials*

112. June 2008 CERMACS, Columbus, Ohio,

Invited Lecture: *Supramolecular Chemistry in Polymeric Systems*

111. June 2008 CERMACS, Columbus, Ohio,
Invited Lecture: *Bio-inspired Dynamic Nanocomposites*

110. June 2008 University of Manchester, UK
Invited Lecture: *Biomimetic Nanocomposites for Cortical Implants*

109. June 2008 Molecular Nanotechnology 2008, University of Reading, UK
Invited Lecture: *Accessing and Utilizing Molecular Nano-scaffolds*

108. May 2008 University of Minnesota IPRIME Workshop, University of Minnesota, USA
Invited Lecture: *Using Non-covalent Interactions to Access Dynamic Materials.*

107. May 2008 Lubrizol, Brecksville, Ohio
Invited Lecture: *Supramolecular Gels: Toward an Understanding of Small Molecule Gelators*

106. May 2008 Gordon Conference, Organic Structures, Italy
Invited Lecture: *Supramolecular Polymers: From Dynamic Chemistry to Dynamic Materials*

105. April 2008 American Chemical Society Meeting, New Orleans, USA
Invited Lecture: *Functional Materials using Supramolecular Polymer Scaffolds.*

104. April 2008 American Chemical Society Meeting, New Orleans, USA
Invited Lecture: *Metallo-supramolecular polymers and gels: A dynamic class of organic/inorganic hybrid polymers.*

103. March 2008 Goodyear, Akron, Ohio
Invited Lecture *Supramolecular Polymers: From Dynamic Chemistry to Dynamic Materials*

102. Feb 2008 Department of Chemistry, The Ohio State University, USA
Invited Lecture: *Supramolecular Polymers: From Dynamic Chemistry to Dynamic Materials.*

101. Oct 2007 Dow Chemicals, Midland, Michigan
Invited Lecture: *Supramolecular Gels.*

100. Oct 2007 Department of Material Science and Engineering, University of Delaware, USA
Invited Lecture: *Utilizing Specific Supramolecular Interactions to Access New Responsive Materials.*

99. Aug 2007 American Chemical Society Meeting, Boston, USA
Invited Lecture: *Investigations into supramolecular polymer architectures.*

98. Aug 2007 American Chemical Society Meeting, Boston, USA
Invited Lecture: *Investigating the Effects of Lanthanide ions in Metallosupramolecular Polymers and Gels*

97. Aug 2007 American Chemical Society Meeting, Boston, USA
Invited Lecture: *Investigations into New Supramolecular Polymers*

96. Aug 2007 American Chemical Society Meeting, Boston, USA
Invited Lecture: *Controlling nanoscale surface assembly using ditopic nucleobase-containing monomers*

95. July 2007 NIST, Washington DC
Invited Lecture: *Utilizing Specific Supramolecular Interactions to Access New Responsive Materials*

94. July **2007** Material Chemistry 8 (MC-8), London, England
Keynote Lecture: *Investigating Self-Assembled Metal-containing Soft Materials*

93. June **2007** Polymer East Gordon Research Conference

Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

92. June **2007** Young(ish) Giants of Chemistry, Edinburgh, Scotland
Invited Lecture: *Supramolecular Polymerization: An Approach to Nanostructured Surfaces*

91. Apr **2007** Dow Chemical Company, Bound Brook, New Jersey
Invited Lecture: *Supramolecular Gels: Non-covalent Physical Gels*

90. Apr **2007** Ohio Nanosummit, Akron, Ohio
Invited Lecture: *Self-Assembly and Forced-Assembly: Using Different Routes to Access Nanomaterials*

89. Apr **2007** Department of Chemistry, University of Texas, Austin
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

88. Apr **2007** Department of Chemistry, Queens University, Canada
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

87. Apr **2007** Department of Chemistry, Vermont University
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

86. Mar **2007** Department of Electrical Engineering and Computer Science, Case Western Reserve University
Invited Lecture: *Controlling Molecular Organization on the Nanoscale: The Bottom-up Approach*

85. Mar **2007** Department of Chemistry, Yonsei University, Korea
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

84. Mar **2007** Department of Material Science and Engineering, National University of Seoul, Korea
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

83. Mar **2007** Department of Chemistry, University of Tokyo, Japan
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

82. Mar **2007** One Dimensional Nanostructures for Nanoarchitectonics 2007, Tsukuba, Japan
Invited Lecture: *Supramolecular Polymerizations: As a Route to Active Nanostructures*

81. Feb **2007** 30th Asilomar Conference on Polymeric Materials, Asilomar, California
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

80. Feb **2007** Department of Chemistry, University of Houston
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

79. Feb **2007** Department of Chemistry, Texas A&M
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

78. Dec **2006** 2nd International Symposium on Coordination Space, Fukyoka, Japan
Invited Lecture: *Responsive metallo-supramolecular polymers and gels*

77. Dec **2006** Department of Chemistry, Rutgers University, Newark
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

76. Oct **2006** Rocky Mountain Regional ACS Meeting, Tucson, Arizona
Invited Lecture: *Controlling Nanoscale Assembly using Ditopic Nucleobase-containing Monomers*

75. Oct **2006** North East Regional ACS Meeting, Binghamton, New York
Invited Lecture: *Controlling Nanoscale Assembly using Ditopic Nucleobase-containing Monomers*

74. Sep **2006** Department of Chemistry, SUNY Fredonia
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

73. Sep **2006** Department of Chemistry, University of Nijmegen, Netherlands
Invited Lecture: *Investigating Different Aspects of Supramolecular Polymerizations*

72. Sep **2006** Department of Chemistry, Eindhoven Institute of Technology, Netherlands
Invited Lecture: *Investigating Different Aspects of Supramolecular Polymerizations*

71. Sep **2006** American Chemical Society Meeting, San Francisco, USA
Invited Lecture: *Controlling Nanoscale Assembly using Ditopic Nucleobase-containing Monomers*

70. Sep **2006** American Chemical Society Meeting, San Francisco, USA
Invited Lecture: *Responsive metallo-supramolecular polymers and gels*

69. Aug **2006** St Andrews University, Scotland
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

68. July **2006** Noveon Cooperation, Ohio
Invited Lecture: *Supramolecular Gels: Toward an Understanding of Small Molecule Gelators*

67. May **2006** ACS Polymer Biennial 2006, Miami
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

66. May **2006** Nanotech 2006, Boston
Invited Lecture: *Stimuli-Responsive Supramolecular Polymers: Investigating how molecular and nano-scale organization affects macroscopic properties*

65. April **2006** Department of Chemistry, Williams College
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

64. April **2006** Department of Chemistry, Virginia Tech
Invited Lecture: *Supramolecular Polymerizations: From Dynamic Chemistry to Dynamic Materials*

63. Mar **2006** Department of Inorganic Chemistry, Wayne State University
Invited Lecture: *Metallo-supramolecular polymers and gels*

62. Mar **2006** Department of Chemistry, McMaster University, Canada
Invited Lecture: *Supramolecular Polymerizations: Using Weak Forces to Build Responsive Materials*

61. Feb **2006** Department of Chemistry and Biochemistry, Georgia Institute of Technology

Invited Lecture: *Supramolecular Polymerization: The development of dynamic materials*

60. Dec **2005** Pacifichem 2005, Honolulu, Hawaii
Invited Lecture: *Metallo-supramolecular polymers*
59. Dec **2005** Pacifichem 2005, Honolulu, Hawaii
Invited Lecture: *Nucleobase Induced Supramolecular Polymerization*
58. Oct **2005** Dartmouth College, Department of Chemistry
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
57. Aug **2005** American Chemical Society Meeting, Washington DC, USA
Invited Lecture: *Supramolecular Polymerization: A Route to Responsive Materials.*
56. June **2005** Japan-US Seminar on Advances in Polymer Chemistry and their Impacts Upon Society, Lake Tahoe, Ca, US
Invited Lecture: *Stimuli-Responsive Materials: From Basic Science to Applications Development*
55. June **2005** 9th International Symposium on Metallomesogens, Lake Arrowhead, UCLA
Plenary Lecture: *Metallo-Supramolecular Polymers and Gels.*
54. Mar **2005** American Chemical Society Meeting, San Diego, Symposium Honoring Craig Hawker
Invited Lecture*: Investigating the Potential of Supramolecular Polymerizations*
53. Feb **2005** University of Akron, Department of Polymer Science and Engineering
Investigating the Potential of Supramolecular Polymerizations: From Nucleobase to Metal-Ligand Interactions
52. Nov **2004** Boston College, Department of Chemistry
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
51. Nov **2004** Emerging Technology Forum on Functional Nanomaterials, Case, Ohio
Invited Lecture*: Self-Healing and Responsive Materials*
50. Nov **2004** Energizer, Westlake, Ohio
Invited Lecture*: At the Interface of Synthetic Supramolecular Chemistry and Material Science*
49. Nov **2004** University of York, UK
Invited Lecture*: At the Interface of Synthetic Supramolecular Chemistry and Material Science*
48. Oct **2004** University of Oakland, Michigan, Department of Chemistry
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
47. July **2004** Faraday Discussions on Self-Organizing Polymers, Leeds, UK
Lecture*: Metal-ligand Induced Supramolecular Polymerization: A Route to Responsive Materials.*
46. June **2004** UCLA, Norma Stoddart Memorial Symposium
Invited Lecture*: SupramolecularPolymerizations: Molecular Recognition in the Construction of Polymeric Systems*
45. May **2004** University of Massachusetts, Amherst, Department of Polymer Science
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
44. Apr **2004** University of California, Santa Barbara: Department of Material Science
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
43. Mar **2004** American Chemical Society Meeting, Anaheim, USA
Invited Lecture: *Metallo-Supramolecular Polymers and Gels.*
42. Mar **2004** UCLA, California Nano-Systems Institute

Invited Lecture: *Supramolecular Polymers: Investigating how molecular and nano-scale organization affects macroscopic properties.*

41. Feb **2004** Bowling Green State University, Department of Chemistry
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
40. Jan **2004** Wright State University, Department of Chemistry
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
39. Nov **2003** Michigan State University, Science at the Edge Program
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
38. Oct **2003** Rensselaer Polytechnic Institute, Polymer Department
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
37. Oct **2003** University of Connecticut, Polymer Department
Invited Lecture*: Supramolecular Polymerization: A Route to Responsive Materials.*
36. Sep **2003** American Chemical Society Meeting, New York, USA
Invited Lecture*: Molecular Recognition in the Construction of Polymeric Systems*
35. Aug **2003** NSF Workshop on Physical Organic Chemistry.
Invited Lecture*: Investigating the Potential of Dynamic Chemistry.*
34. July **2003** VIIth US/German Polymer Symposium, Bayreuth, Germany
Invited Lecture: *Supramolecular Polymerization: A Route to Responsive Materials.*
33. July **2003** 2nd International 21st Century COE Symposium, Osaka University, Osaka Japan.
Invited Lecture: *Supramolecular Polymerization: A Route to Responsive, Recyclable Materials.*
32. Mar **2003** American Chemical Society Meeting, New Orleans
Lecture: *Investigations into Nucleobase-Induced Supramolecular Polymerization.*
31. Dec **2002** Osaka Prefecture University, Osaka, Japan
Invited Lecture: *Dynamic Approaches to Organic Synthesis.*
30. Dec **2002** Japan-US Seminar on Advanced Polymer Chemistry for the 21st Century, Nagoya, Japan
Invited Lecture: *Dynamic Approaches to Polymer Synthesis: The Utilization of Equilibrium Chemistry.*
29. Aug **2002** American Chemical Society Meeting, Boston
Lecture: *Investigations into Nucleobase-Induced Self-Assembly*
28. May **2002** Chulalongkorn University, Bangkok, Thailand
Invited Lecture: *Dynamic Chemistry—From Smart Materials to New Polymer Architectures.*
27. Nov **2001** Bayer Corporation, Pittsburgh
Invited Lecture: *Utilizing Polymer Architecture.*
26. Nov **2001** ACS Pittsburgh Polymer Group, Pittsburgh
Invited Lecture: *Developments Toward Interlocked Macromolecules and Adaptable Materials.*
25. Sep **2001** 6th International Symposium on Polymers for Advanced Technologies (PAT-2001) Eilat, Israel.
Invited Keynote Lecture: *Developments Toward Interlocked Macromolecules*
24. Apr **2001** Department of Chemistry, Case Western Reserve University, Cleveland, Ohio
Invited Lecture: *Dynamic Chemistry—From Smart Materials to New Polymer Architectures.*

23. Mar **2001** Department of Chemistry, Denison University, Ohio
Invited Lecture: *Dynamic Chemistry—From Smart Materials to New Polymer Architectures.*
22. Oct **2000** Department of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio
Invited Lecture: *Dynamic Chemistry—From Smart Materials to New Polymer Architectures.*
21. July **2000** XXV International Symposium on Macrocyclic Chemistry, St Andrews, UK
Poster: *Precision Molecular Grafting: Exchanging Surrogate Stoppers in [2]Rotaxanes*
20. June **2000** Dow Chemical Company: Smart Materials Symposium: Midland, Michigan
Invited Lecture: *Dynamic Chemistry: a Route to Smart Materials*
19. Feb **2000** Twenty-Third Asilomar Conference on Polymers
Invited Lecture: *From Combinatorial Libraries—Tuning of Macromolecular Systems*
18. Aug **1999** American Chemical Society: New Orleans, USA
Poster: *Dynamic Carcerands*
17. Aug **1999** American Chemical Society: New Orleans, USA
Poster: *Solid-State ^{13}C NMR of a [2]Catenane*
16. Aug **1999** American Chemical Society: New Orleans, USA
Lecture: *Thermodynamic Synthesis of [2]Rotaxanes*
15. Aug **1999** American Chemical Society: New Orleans, USA
Poster: *Binding and Catenane formation of Methylcarboxy substituted BPP34C10 Derivatives.*
14. Aug **1999** American Chemical Society: New Orleans, USA
Lecture: *Template-Directed Synthesis of Dynamic Rotaxanes by Imine Exchange*
13. Aug **1999** American Chemical Society: New Orleans, USA
Lecture: *A new route to the Daisy Chain polyrotaxanes*
12. Feb **1999** Department of Macromolecular Science, Case Western Reserve University, Cleveland, Ohio
Invited Lecture: *Dynamic Approaches to Polymer Chemistry*
11. Jan **1999** Department of Chemistry, Miami University, Miami, Florida
Invited Lecture: *Dynamic Approaches to Chemistry*
10. Nov **1998** Department of Chemistry, Emory University, Atlanta, Georgia
Invited Lecture *Dynamic Approaches to Chemistry*
9. Aug **1998** NATO Advanced Research Workshop on Supramolecular Science: Lerici, Italy
Poster: *Dynamic Rotaxanes*
8. June **1998** XXIII International Symposium on Macrocyclic Chemistry: Turtle Bay, Hawaii
Poster: *Building Dynamic Combinatorial Libraries*
7. Jan **1998** Mona Symposium on Natural Products: Kingston, Jamaica
Plenary Lecture: *Unnatural Things with Natural Products*
6. Nov **1997** University of Glasgow: Glasgow, United Kingdom
Invited Lecture: *Building Dynamic Combinatorial Libraries*
5. July **1997** Cambridge Centre for Molecular Recognition Annual Meeting: Cambridge, UK
Lecture: *Self-Sorting Under Dynamic Conditions*
4. Aug **1996** 9th International Symposium on Molecular Recognition and Inclusion: Lyon, France
Poster: *Thermodynamic Cyclization of Cinchona Alkaloid Derivatives*

3. Aug **1994** 8th International Symposium on Molecular Recognition and Inclusion: Ottawa, Canada
   Poster: *Persubstituted Benzophenones: A New Source of Clathrates*
2. Mar **1994** Royal Society of Chemistry Autumn Meeting: Glasgow, United Kingdom
   Lecture: *Persubstituted Aromatics in Supramolecular Crystal Engineering*
1. Aug **1992** 7th International Symposium on Molecular Recognition and Inclusion: Kyoto, Japan
   Presentation: *Supramolecular Crystal Engineering*