Invited Lectures at Universities

139 Michael A. Brook, Sijia Zheng, Miguel Melendez, Yang Chen, Mengchen Liao, Cody B. Gale and Robert Bui, University of Ghent, Belgium May 2022
Controlling silicone material properties using sulfur chemistry

138 Michael A. Brook, Guanhua Lu, Akop Yepremyen, Khaled Tamim, Yang Chen, Sijia Zheng, Cody B. Gale and Angela Li, Danish Technical University, May 2022
Oxidants and Antioxidants in Silicones

137 Michael A. Brook, Technicological University of Dublin, Ireland May 2022
Waste Materials Are Not (Necessarily) a Compromise: Reinforcing Fillers

136 Michael A. Brook (ICUF D'Arcy McGee Beacon Fellowship Lecture), Technological University of Dublin, Ireland Mar. 2021
How Can Silicones Contribute to Sustainability? Dissolving Automobile Tires

135 Michael A. Brook, Bowling Green State University, Chemistry Sept. 2020
Moving Towards Sustainable Silicones, Some Nice Surprises

134 Michael A. Brook, Yang Chen, Andrea Feinle, Kyle Faiczak, Ayodele Fatona, Feb. 2020
Adrien Lusterio, Jose Moran-Mirabal, Adnan Murad, Andrew Osamudiamen, David Valentini, and Sijia Zhang, Danish Technical University, Lyngby Denmark.
Combining Saccharides with Silicone Polymers to Improve Sustainability

133 Michael A. Brook, Universiteit van Amsterdam May 2019
The Greening of Silicones: Exploiting Natural Materials

132 Michael A. Brook, Université Paul Sabbatier, Toulouse April 2018
Tailoring Silicone Properties for Interfacial Applications: Limitations and Opportunities

131. Michael A. Brook, Lawrence University, Appleton, Wisconsin March 2018
The Greening of Silicones: Exploiting Natural Materials

130. Pittsburg State University, Pittsburg Kansas, Michael A. Brook,* Jan. 2018
Scott E. Laengert, Ben Macphail, Robert Bui, Sijia Zheng, Alyssa F. Schneider, Mengchen Liao, Yang Chen and Jianfeng Zhang
The Greening of Silicones: Exploiting Natural Materials

129. Pittsburg State University, Pittsburg Kansas, Michael A. Brook,* Jan. 2018
Scott E. Laengert,Robert Bui, Sijia Zheng, Jennifer Morgan, Alyssa F. Schneider, Mengchen Liao, and Yang Chen
Distinguished Polymer Lecture
An Organic Chemist's View of Silicones: Searching for Better Control

128. Brockhouse Institute for Materials Research, McMaster University Jan. 2018
Michael A. Brook,* Scott E. Laengert, Ben Macphail, Robert Bui, Sijia Zheng, Alyssa F. Schneider, Mengchen Liao, Yang Chen and Jianfeng Zhang,
Should BIMR Worry If Materials Are Green? The View of a Silicone Chemist

127. Chemistry, Western University Dec. 2016
Michael A. Brook*, Laura Zepeda-Velasquez, Marlena Whinton, Yang Chen, John B. Grande, Madiha F. Khan, Talena Rambarran, Ayodele Fatona and Jose Moran-Mirabal
Water Responsive Silicone Polymers

126. Chemistry, Shandong University Nov. 2016
Water Responsive Silicone Polymers

125. Chemical Engineering, Danish Technical University Apr. 2016
Tempest in a C-Cup: Re-Regulating Breast Implants
124. Chemical Engineering, Danish Technical University Apr. 2016
Designing Silicones to Control Interfaces
123. Chemistry, University of Alberta Oct. 2015
Structuring Interfaces with Structured Siloxanes
122. Chemistry, Temple University March 2015
Structuring Interfaces with Structured Siloxanes
121. Chemistry Wilfred Laurier, Waterloo ON, Jan. 2015
Synthetic Strategies to Manipulate Silicone Interfaces
120. AlchemUS (Stellenbosch University Chemistry Society), Oct. 2014
Stellenbosch South Africa
Breast Implants and Lawsuits: A Tempest in a C Cup?
119. Chemical Engineering, Technical University of Denmark, Nov. 2014
Controlling Interfaces with Silicones
118. Polymer Science and Chemistry, Stellenbosch University, South Africa
Synthetic Strategies to Manipulate Silicone Interfaces
117. Concordia University, Montreal Jan. 2013
New Strategies to Responsive Silicone Surfactants with Precise Structures
116. McGill University, Montreal Nov. 2012
Why Can't Silicones Follow the New Polymer Paradigm? Making Precise Structures
115. University of Massachusetts, Amherst Sep. 2012
Strategies to Structure Functional Silicones
114. McMaster University, *The Imposter Syndrome*, Current Research in Mar. 2012
Engineering, Science and Technology Conference
113. Queen's University, Chemical Engineering Feb. 2012
Interfacial Engineering Using Siloxanes
112. CSIRO Melbourne Australia Apr. 2011
Why Don't People Like Silicones as Biomaterials (and what can we do about it)?
111. INSA, Université de Lyon I, Lyon France March 2011
Strategies for the Synthesis of Hydrophilic Silicones
110. Université Paul Sabbatier, Toulouse, France March 2011
Strategies for the Synthesis of Hydrophilic Silicones
109. SUNY Buffalo, NY March 2011
Interfacial Structuring Using Silicon Chemistry
108. CSIRO Melbourne Australia Feb. 2011
Interfacial Control: New Strategies for Functionalizing and Crosslinking Silicones
107. School of Biomedical Engineering, McMaster University Nov. 2010
Strategies to Improve Silicone Elastomer Biocompatibility
106. Soochow University, Suzhou, China Oct. 2010
Silicones: Strategies for Improved Biocompatibility
105. Institute of Chemical Industry of Forest Products, Nanjing China May 2010
Structuring Siloxanes at Interfaces: Exploitation of Natural Materials
104. Beijing University of Chemical Technology May 2010

Structuring Siloxanes at Interfaces Surface Manipulation to Improve Silicone Biocompatibility

103. Institute of Chemistry, Chinese Academy of Sciences May 2010
Structuring Siloxanes: New Routes to Silica and Silicone Composites

102. WISE (Women in Science and Engineering), McMaster University March 2010
The imposter syndrome

101. University of Toronto, Canada Jan. 2010
Structuring Siloxanes at Interfaces

100. BIMR, McMaster University Oct. 2009
Surface Manipulation Strategies To Improve Silicone Biocompatibility

99. CSIRO Melbourne Australia May 2009
Controlled Synthesis at Silicone Interfaces: New Strategies for Improved Biocompatibility

98. Flinders University, Adelaide, Australia May 2009
Synthesis of Structured Inorganic Materials Using Silicon-Based Surfactants

97. Queensland University of Technology, Brisbane, Australia May 2009
Controlled Synthesis at Silicone Interfaces: New Strategies for Improved Biocompatibility

96. Rensselaer Polytechnic Institute, Troy NY, *The Reed Lecture* April, 2009
Controlled Synthesis at Silicone Interfaces: New Strategies for Improved Biocompatibility

95. Michael A. Brook, University of British Columbia (Pharmacy) Oct. 2008
Using Silicones with Pharmaceutical Actives: Strategies for Protein Delivery

94. Michael A. Brook, University of Western Ontario May 2008
Using Silicones to Control Dynamic Interfaces: Silicone Biomaterials to Gold Crystals

93. Michael A. Brook, Case Western Reserve University, Feb. 2008
Using Silicones to Control Dynamic Interfaces: Silicone Biomaterials to Gold Crystals

92. Michael A. Brook, Trent University, Peterborough, ON Sept. 2007
Dynamic Interfaces: Synthetic Approaches to Controlling Morphology

91. Michael A. Brook, Department of Chemistry, Universidad Guanajuato, Aug. 2007
Binding cells to silicone and TiO_2 surfaces

90. Michael A. Brook, Queen's University, Belfast, N. Ireland May 2007
Making Silicones More Biocompatible: Using Synthesis to Structure Biomedical Interfaces

89. Michael A. Brook, University of Limerick, Ireland Apr. 2007
Dynamic Interfaces: Synthetic Approaches to Controlling Morphology

88. Michael A. Brook, Trinity College, Dublin, Ireland Mar. 2007
Dynamic Interfaces: Synthetic Approaches to Controlling Morphology

87. Michael A. Brook, NUI Galway, Chemistry, Ireland Mar. 2007
Dynamic Interfaces: Synthetic Approaches to Controlling Morphology

86. Michael A. Brook, University College Cork, Ireland Mar. 2007
Dynamic Interfaces: Synthetic Approaches to Controlling Morphology

85. Michael A. Brook, NCBES NUI Galway, Ireland Jan. 2007
Making Silicones More Biocompatible: Using Synthesis to Structure Biomedical Interfaces

84. Michael A. Brook, McMaster University, BIMR Nov. 2006
Using Synthesis to Structure Interfaces: Making Silica and Silicones Biocompatible

83. Michael A. Brook, McMaster University, BIMR Summer Lecture Series June 2006
Controlling interfaces for biomedical devices: using silica and silicones (with a comment on breast implants)

82 Michael A. Brook, McMaster University, Chemical Engineering March 2006.
Using Synthesis to Structure Interfaces: Making Silica and Silicones Biocompatible
81 Michael A. Brook, McMaster University Undergraduate Chemistry Society March 2006
***The Imposter Syndrome**: How to succeed (?) in spite of chemical ignorance*
80 Université de Montpellier, II, France Jan. 2006
79 Brock University, Chemistry Department Oct. 2004
78 University of Waterloo, Chemistry Department Oct. 2004
Controlling protein stability in silicones and silica: Synthesis of new biomaterials
77 McMaster University, BIMR Summer Research Program Weekly Seminar Series, June 2004
Compatibilizing proteins with silica and silicones (what do graduate students actually do?)
76 Institute of Chemistry, Chinese Academy of Sciences, Beijing Nov. 2003
Using Silicone:Protein Interactions to Stabilize Water/Oil Interfaces and Protein Structure
75 Qingdao University of Technology Nov. 2003
Stereocontrol Using Silyl Groups: Enantioselective Reductions and Claisen Rearrangements
74 Huazhong University of Science and Technology Nov. 2003
Using Silicone:Protein Interactions to Stabilize Water/Oil Interfaces and Protein Structure
73 Wuhan University of Technology Nov. 2003
Protein-Doped Mesoporous Silica for Drug Screening Applications
72 Nanjing University Nov. 2003
Using Silicone:Protein Interactions to Stabilize Water/Oil Interfaces and Protein Structure
71 UWEB (University of Washington Engineered Biomaterials), Seattle, May 2003
Stabilizing Proteins in Silica and Silicones
70 Ian Wark Research Institute, University of South Australia, Adelaide, South Australia
Michael A. Brook, Frank LaRonde, Mustafa Mohamed and Forrest Li March 2003
Stereocontrol Using Silyl Groups: Enantioselective Reductions and Claisen Rearrangements
69 Ian Wark Research Institute, University of South Australia, Adelaide, South Australia
M. A. Brook, Dan Chen, Kui Guo, Zhang Zheng, John Brennan, and Paul Zelisko March 2003
Formation of Protein-Containing Controlled Pore Silica for Drug Discovery
68 Perspectives on Silicon (6 hours lectures during a 30 hour short course), Ian Wark Research Institute, University of South Australia, Adelaide, South Australia July 2002
67 Queensland University of Technology, Brisbane, Australia June 2002
Bringing Organic Chemistry to Silicon-based Interfaces
66 University of Sydney, Australia June 2002
The Passivation of Silica and Protein/Water Interfaces Using Silane Coupling Agents and Functional Silicones.
65 Flinders University, Adelaide, Australia June 2002
Stabilization of Water-in-Silicone Oil Emulsions: Surfactants Formed by the Interaction of Proteins/enzymes and Functionalized Silicones
Preparing and Passivating Silica: Matching Surface Chemistry to Application
64 University of South Australia, Adelaide, Australia June 2002
The Passivation of Silica and Protein/Water Interfaces Using Silane Coupling Agents and Functional Silicones.
63 McMaster University: Undergraduate Chemistry Series March 2002

From Oral Vaccines to Breast Implants: What Happens When Proteins Meet Silicones?

62 Ecole Nationale Supérieure, Lyon, France Feb. 2002

Protéines chez soi: Dans les silicones et dans la silice (New homes for proteins in silicones and silica)

61 University of Dresden, Germany, Institute of Polymer Research Feb. 2002

The passivation of silica and silicone surfaces using silane coupling agents and proteins.

60 University of Toronto Feb. 2001

Silicone/protein interactions: Modifying hydrophobic/hydrophilic interactions to control both protein and interfacial stability

59 University of Windsor Sept. 2000

Exploiting Extracoordinate Silicon: Enantioselective Reductions and Aldol Reactions Catalyzed by Chiral Amines (and some Silicone-Protein Stuff)

58 Institut National des Sciences Appliquées de Lyon July 2000

Silicium à l'Interface: Silanes et Silicones Fonctionnalisés

57 Institut Charles Sadron, Université Louis Pasteur June 2000

Silicium à l'Interface: Silanes et Silicones Fonctionnalisés

56 Universite de Bordeaux I May 2000

Combining Silicones and Biopolymers: Controlling the Interface (en français)

55 Ecole Normale Supérieure de Lyon May 2000

Silicium à l'Interface: Silanes et Silicones Fonctionnalisés

54 University of Twente May 2000

Silicon at the Interface: New Surface Active Silanes and Silicones

53 University of Amsterdam May 2000

Exploiting Extracoordinate Silicone: Enantioselective Reductions and Aldol Reactions Catalyzed by Chiral Amines

52 Kyoto University June 1999

Chiral Extracoordinate Hydrosilanes Derived from Bidentate Ligands: Enantioselective Reduction of Ketones

51 Kyoto Institute of Chemistry June 1999

Gifts From Nature: New Materials From Silicones and Biopolymers

50 Chinese University of Hong Kong May 1999

Gifts From Nature: New Materials From Silicones and Biopolymers

49 University of Hong Kong May 1999

Chiral Extracoordinate Silanes: Catalytic and Enantioselective Reduction

48 Hong Kong University of Science and Technology May 1999

Chiral Extracoordinate Silanes Derived From Histidine: Catalytic and Enantioselective Reduction

47 McMaster University President's Stewardship "Over the Ivy Wall" March 1999

Confusing Nature: What does Lemon Pledge have to do with Oral Vaccines?

46 Chemical Engineering, McMaster University Feb. 1999

Confusing Nature: A Look at the Hydrophobization of Biopolymers Using Silanes and Silicones

45 Brock University Feb. 1999

Stereoselective Reduction of Ketones by Histidine: Alkoxysilane Complexes

44 Mount Allison University Nov. 1998

Confusing Nature: A Look at the Hydrophobization of Biopolymers Using Silanes and Silicones
43 University of New Brunswick Nov. 1998
Confusing Nature: A Look at the Hydrophobization of Biopolymers Using Silanes and Silicones
42 Acadia University Nov. 1998
Confusing Nature: A Look at the Hydrophobization of Biopolymers Using Silanes and Silicones
41 Dalhousie University Nov. 1998
Confusing Nature: A Look at the Hydrophobization of Biopolymers Using Silanes and Silicones
40 McMaster University Board of Governers Oct. 1998
Combining Silicones and Biopolymers: New Materials
39 Telemark University, Porsgrunn, Norway Feb. 1998
Silicone Degradation Mechanisms
38 Swedish Institute for Pulp and Paper, Stockholm and
Swedish Institute For Surface Science, Stockholm Dec. 1997
Silane and Silicone Coupling Agent Chemistry: Are Biopolymer Surfaces Like Siliceous Surfaces?
37 University of Toronto, Faculty of Pharmacy, Oct. 1997
Using Silicon Chemistry in Drug Delivery: Prodrugs Based on Modified Silica and Oral Protein Delivery Using Silicones
36 University of British Columbia Sept. 1997
Modifying Biopolymers with Silanes and Silicones
35 Brockhouse Institute for Materials Science, McMaster University Jan. 1997
Hard and soft siloxanes: hydrosilsequioxane: platinum catalysts and silicone: protein copolymers
34 McMaster Undergraduate Chemistry Club
Silicon in Biology Nov. 1996
Organosilanes as Protecting Groups: Different Approaches to the Stabilization of Small Molecules, Polymers, Transition Metals and Surfaces
Université Paul Sabatier, Toulouse, France (3 lectures) June 1996
33 *Organosilanes in an Inorganic World and Inorganic Silicon in an Organic World*
32 *What Happens When Silicon Meets Biology*
31 *Stabilized Group 14 Cations*
Université de Bordeaux I, France, (3 lectures) May 1996
30 Universidad del Pais Vasco, San Sebastian, Spain June 1996
29 *Organosilanes in an Inorganic World and Inorganic Silicon in an Organic World*
28 *What Happens When Silicon Meets Biology*
27 *Stabilized Group 14 Cations*
26 Landbouw Universiteit Wageningen, Wageningen, Netherlands May 1996
Silicones at the Interface: Starch/Protein/Silicone Microparticles as Oral Vaccines
25 Université de Namur, Belgium May 1996
Stabilizing β-Cations and Protecting Transition Metals with Silicon
24 Rijks Universiteit Utrecht June 1995
Controlled Modification of Silica Surfaces: Polyolefin and Silicone Sterically Stabilized Silica Colloids
23 Queen's University Sept. 1994
Silicone at the Interface: What happens when it's found in unusual places

22 McMaster University Oct. 1993
Silicon Mediated Cope-type Cyclizations OR After one year in the Netherlands, what does Fokkje (fok-ya) really mean?
21 University of Western Ontario Sept. 1993
Silicon Mediated Cope-type Cyclizations
20 University of Montpellier May 1993
Silicon Bearing Electron Withdrawing Groups: Exploiting the Differences
19 University of Toulouse May 1993
Silicon Bearing Electron Withdrawing Groups: Exploiting the Differences
18 University of Bordeaux May 1993
Silicon as Mediator: Making the Drugs and Delivering Them to the Patient
17 Free University of Amsterdam March 1993
Silicon Bearing Electron Withdrawing Groups: Exploiting the Differences
16 Open University, Milton Keynes, England March 1993
A Silicon Transplant: From the β-effect to Polymers (focus on silicon extracoordination)
15 University of Sussex March 1993
A Silicon Transplant: From the β-effect to Polymers (focus on silicon hyperconjugation)
14 University of Utrecht: Feb. 1993
Silicon Bearing Electron Withdrawing Groups: Exploiting the Differences
13 University of Groningen Feb. 1993
Silicon Bearing Electron Withdrawing Groups: Exploiting the Differences
12 University of Amsterdam Jan. 1993
A Silicon Transplant: From the β-effect to Polymers (focus on synthesis)
11 Technische Hochschule Darmstadt Jan. 1993
A Silicon Transplant: From the β-effect to Polymers (focus on β-effect)
10 Universität Kaiserslautern Jan. 1993
A Silicon Transplant: From the β-effect to Polymers (focus on silicon hyperconjugation)
9 ETH-Zürich (Seebach Group Meeting) Feb. 1993
A Silicon Transplant: From the β-effect to Polymers
Centre of Advanced Scientific Investigation (CINVESTAV) Mexico City, (2 lectures) March 1992
8 *Polymeric Materials Derived from the β-Effect*
7 *The β-effect: Modifying the Ligands on Silicon*
6 Guelph University March 1992
A Silicon Transplant: From the β-effect to Polymers
5 SUNY Binghampton (New York) March 1991
4 Universiteit van Amsterdam July 1990
3 McMaster University (Peacock Lecture Series) Oct. 1989
2 University of Western Ontario Oct. 1988
1 Université de Montréal Dec. 1988