

Joseph M. DeSimone
 Chancellor's Eminent Professor of Chemistry at UNC
 William R. Kenan Jr. Distinguished Professor of
 Chemical Engineering at NC State and of Chemistry at UNC

Current Research Interests:

New 3D Printing strategies; Applying the lithographic fabrication technologies from the computer industry for the design and synthesis of new medicines and vaccines; Nanomedicine; Interventional oncology; Fluoropolymers: photolithography, batteries, microfluidics, minimally adhesive surfaces; Medical devices; Colloid, surfactant and surface chemistry; Role of diversity in innovation; Entrepreneurship from research-intensive universities; Public – private partnerships.

Contact Information:

Mail: Department of Chemistry
 University of North Carolina at Chapel Hill
 CB #3290 Caudill Laboratories
 Chapel Hill, NC 27599-3290
desimone@unc.edu

Websites:

DeSimone Group:
<http://www.desimone-group.chem.unc.edu/>
<http://www.chem.unc.edu/people/faculty/desimone/>
 Carolina Center of Cancer Nanotechnology Excellence
<https://unclineberger.org/ccne>

Personal Information:

Born: May 16, 1964; Norristown, Pennsylvania.
 Married: Suzanne DeSimone since 1986; Children: Philip (b. 1989) and Emily (b. 1992).

Education:

B.S. Chemistry Ursinus College; May 1986.
 Ph.D. Chemistry Virginia Polytechnic Institute and State University; March 1990.
 (Advisor: Professor James E. McGrath, NAE)

Professional Positions:

2014 – Present CEO and Co-Founder, Carbon, Inc., a 3D printing company co-founded by DeSimone with Ed Samulski and Alex Ermoshkin located in Silicon Valley, California.
 2008 – Present Chancellor's Eminent Professor of Chemistry at UNC and William R. Kenan, Jr. Distinguished Professor of Chemical Engineering at NC State and of Chemistry at UNC
 2010 – Present Adjunct Member, Memorial Sloan Kettering Cancer Center and Sloan-Kettering Institute for Cancer Research
 2008 – Present Founding Director, Institute for Nanomedicine at UNC-CH
 2005 – Present Faculty Member, Lineberger Comprehensive Cancer Center and Dept. of Pharmacology, School of Medicine
 2005 – 2015 Co-PI, Carolina Center of Cancer Nanotechnology Excellence
 2012 – 2013 Director, Kenan Institute of Private Enterprise, Kenan Flagler Business School
 2003 – 2012 Founding Director, Institute for Advanced Materials, Nanoscience and Technology at UNC-CH
 1999 - 2009 Director, NSF Science and Technology Center for Environmentally Responsible Solvents and Processes
 1999 - 2008 William R. Kenan Jr. Distinguished Professor of Chemistry at UNC-CH and Chemical Engineering at NCSU
 1996 - 1999 Mary Ann Smith Professor of Chemistry at UNC-CH and Professor of Chemical Engineering at NCSU
 1995 Mary Ann Smith Associate Professor of Chemistry at UNC-CH and Chemical Engineering at NCSU
 1990 - 1994 Assistant Professor of Chemistry at UNC-CH

Election to Learned Societies

- Member of the National Academy of Medicine (2014)
- Member of the National Academy of Sciences (2012)
- Member of the National Academy of Engineering (2005)
- Member of the American Academy of Arts and Sciences (2005)

- Fellow, American Association for the Advancement of Science (AAAS) (2006)
- Phi Beta Kappa (Tau of Pennsylvania Chapter at Ursinus College)

Awards and Honors:

- **2019 Wilhelm Exner Medal**, by the Austrian Industry Association, for achievements in science and research that have had an impact on business and industry
- **2018 National Academy of Sciences Award for Convergent Science**
- **2017 Heinz Award** in the Technology, the Economy and Employment category
- 2017 Faculty Service Award, University of North Carolina General Alumni Association
- 2017 Frost & Sullivan Manufacturing Leadership Award for Visionary Leadership
- **National Medal of Technology and Innovation**, the highest honor in the United States for achievement and leadership in advancing technological progress, presented by President Barack Obama in 2016
- 2016 University Distinguished Achievement Award, Virginia Tech
- **2015 Kabiller Prize in Nanoscience and Nanomedicine** from Northwestern University
- **2015 Dickson Prize for Science** from Carnegie Mellon University
- **2014 College of Science Hall of Distinction**, Virginia Tech
- **2014 Industrial Research Institute Medalist**
- **2014 Kathryn C. Hach Award for Entrepreneurial Success**, ACS National Award (w/ Ben Maynor and Jason Rolland, for developing the PRINT imprint lithography technology and founding Liquidia Technologies).
- **2013 Fellow** National Academy of Inventors
- **2012 Walston Chubb Award for Innovation**, presented by Sigma Xi, The Scientific Research Society, to honor and promote creativity in science and engineering.
- 2012 Fellow, American Chemical Society
- Named a **Paul Harris Fellow** by the Rotary Foundation of Rotary International “in appreciation of tangible and significance assistance given for the furtherance of better understanding and friendly relations among peoples of the world”
- **2010 AAAS Mentor Award**, recognizing members of the American Association for the Advancement of Science who have mentored significant numbers of students from underrepresented groups towards a Ph.D. in the sciences or who have changed the climate of a department, college or institution to significantly increase the diversity of students completing doctoral studies in the sciences.
- **2011 Mendel Medal** from Villanova University
- Chair, Gordon Research Conference on Drug Carriers in Medicine and Biology (2012)
- **2011 Harrison Howe Award by the Rochester Section of the American Chemical Society**
- *2011 PMSE Fellow*, Division of Polymeric Material Science and Engineering, American Chemical Society
- *2010 Founding POLY Fellow*, Division of Polymer Chemistry, American Chemical Society
- *2009 Tar Heel of the Year*, Undergraduates at the school newspaper selection of the Person of the Year
- **2009 NIH Director’s Pioneer Award**
- **2009 North Carolina Award**, the highest honor the State of North Carolina can bestow to recognize notable achievements of North Carolinians in the fields of Literature, Science, the Fine Arts and Public Service.
- *2009 Distinguished Graduate Alumni Achievement Award*, Virginia Tech
- *2009 Alexander M. Cruickshank Award*, Gordon Research Conferences
- **2008 recipient of the \$500,000 Lemelson-MIT Prize**
- **2008 Tar Heel of the Year**, Raleigh News & Observer
- Named one of the “*One Hundred Engineers of the Modern Era*” by the American Institute of Chemical Engineers (AIChE) marking the 100th Anniversary of the AIChE

- Business Leader Magazine's *2007/2008 Impact Entrepreneur of the Year* for the Triangle
- 2008 Inductee into the *Order of the Golden Fleece*, the oldest honor society of its kind in the nation (since 1904) and the most prestigious honor society at the University of North Carolina at Chapel Hill
- **2007 Collaboration Success Award** from The Council for Chemical Research
- **Elected, College of Fellows, American Institute for Medical and Biological Engineering (2006)**
- *H.F. Whalen, Jr. 2006 Award for Entrepreneurship* by ACS Div. of Business Development & Management
- *2005 Entrepreneurial Excellence Award for Life Science Spin-out of the Year* for Liquidia Technologies
- **2005 American Chemical Society Award for Creative Invention**
- **2002 John Scott Award** presented by the City Trusts, Philadelphia, given to "the most deserving" men and women whose inventions have contributed in some outstanding way to the "comfort, welfare and happiness" of mankind
- *2002 Engineering Excellence Award by DuPont* for Successful Commercialization of Supercritical CO₂ Polymerization Plant at DuPont Fayetteville Works
- *2002 Wallace H. Carothers Award* from the Delaware Section of the American Chemical Society to honor scientific innovators who have made outstanding contributions and advances in industrial applications of chemistry
- *Ernst & Young 2001 Entrepreneur of the Year in Technology* (Carolinas)
- *2001 Inventor of the Year Award* from the Triangle Intellectual Property Law Association
- *2001 Governor's Entrepreneurial Company of the Year Award* for Micell Technologies
- **2001 Esselen Award for Chemistry in the Public Interest to recognize a chemist for outstanding achievement in scientific and technical work that contributes to the public well-being**
- *2001 Outstanding Young Alumnus Award* from the Virginia Tech Alumni Association
- **2000 Oliver Max Gardner Award** from the University of North Carolina, given to that person, who in the opinion of the Board of Governors' Committee, "... during the current scholastic year, has made the greatest contribution to the welfare of the human race."
- **1999 Fresenius Award** of the PHI LAMBDA UPSILON Honorary Chemical Society, presented annually to an outstanding young scientist who has attained national recognition in the areas of research and teaching
- **Carl S. Marvel Creative Polymer Chemistry Award (1999)**, presented annually to recognize accomplishments and/or innovation of unusual merit in the field of basic or applied polymer science by younger scientists
- *Runner-up, 1999 Tar Heel of the Year Award* (with Elizabeth Dole, Mia Hamm, and Bob Young of Red Hat)
- **Honorary Doctorate of Science** from Ursinus College (1999)
- **Alfred P. Sloan Research Fellowship (1998-2001)**
- *R&D 100 Award with Micell Technologies (1998)*
- **Presidential Green Chemistry Challenge Award (1997)** in recognition of outstanding chemical technologies (Surfactants for CO₂) that incorporate the principles of green chemistry into chemical design, manufacture, and use
- *Governor's Award for Excellence (1997)*
- *Chancellor's Award for Excellence (1997)*
- *1995 Waldo Semon Award Lecturer*, The University of Akron
- *1995 Charles H. Stone Award*
- Finalist for the *1995 DISCOVER AWARD FOR TECHNOLOGICAL INNOVATION*
- **1993 Presidential Faculty Fellow Award** from the National Science Foundation
- *1993 Philip and Ruth Hettleman Prize for Artistic and Scholarly Achievement*
- **1992 National Science Foundation Young Investigator** - Division of Materials Research

Distinguished Lectureships and Public Presentations:

- *2019 Brumley D. Pritchett Lecture*, Georgia Tech
- *2018 Wilhelm Lecture*, Princeton University
- *2018 W. N. Lacey Lectureship in Chemical Engineering*, Caltech
- *2017 Fred Kavli Distinguished Lectureship in Materials Science*, Materials Research Society (MRS)

- 2016 *Distinguished Lecturer, RTI International*
- 2016 *Butler Lectureship in Polymer Chemistry at the University of Florida*
- 2015 *Maroney-Bryan Distinguished Lecture, UC-Davis*
- 2015 *38th Annual Carl F. Schmidt Lecture, University of Pennsylvania School of Medicine*
- 2015 *27th Annual Robert F. Rushmer Lecture, University of Washington, Department of Bioengineering*
- 2015 *W. Allan Powell Lectureship in Chemistry, University of Richmond*
- 2014 *Dean's Distinguished Lecture Series, NC A&T SU*
- 2014 *Distinguished Lecturer for the Parker H. Petit Institute for Bioengineering and Bioscience at Georgia Tech*
- 2014 *Bayer Lecture, University of Pittsburgh*
- 2014 *Novartis Lectureship, Columbia University*
- 2014 *Distinguished Lecturer, U. S. Naval Research Laboratory*
- 2013 *Inaugural Entrepreneurship and Innovation Lecture, Ursinus College, 2013*
- 2013 *University Distinguished Lecture in Science & Engineering at Stony Brook University*
- 2012 *NCIIA Plenary Lecture "Translating Basic Science into Products and the Role of Diversity in Making that Happen"*
- 2012 *Stieglitz Lecture, Chicago Section of the ACS*
- 2012 *Innovations in Public Health Lecture, Gillings School of Global Public Health, UNC-Chapel Hill*
- 2012 *Distinguished Lecturer, Materials Research Science and Engineering Center (MRSEC) lecture series, University of Massachusetts Amherst*
- 2012 *Keynote Lecture, Luther Hodges Ethics Luncheon, Research Triangle Park, NC*
- 2012 *Shell Science Seminar, National Science Teachers Association (NSTA) National Conference on Sci. Education*
- 2012 *Marker Lecture in the Department of Chemistry at Penn State*
- 2011 *Speaker at TEDMED "...where the world's most creative minds meet healthcare's most innovative science..." in San Diego.*
- 2011 *Distinguished Speaker Colloquium, Department of Electrical and Computer Engineering, NC State University*
- 2011 *Henry McGee Lecture at Virginia Commonwealth University*
- 2010-2011 *Aggarwal Lectures in Polymer Science, Department of Chemistry, Cornell University*
- 2010 *President's Council Symposium Lecturer, Cold Spring Harbor Laboratory (with R. S. Langer and G. Whitesides)*
- 2010 *Pigford Lecture, Department of Chemical Engineering, University of Delaware*
- 2010 *Danny Thomas Lecturer, St. Jude Children's Research Hospital*
- 2010 *Dow Lecture, Northwestern University*
- 2010 *Lecturer, Novartis Institutes for Biomedical Research*
- 2010 *NIST Colloquium Series Lecturer*
- *Plenary Speaker, 10th Annual Oncology Research Symposium at MIT's Koch Institute for Integrative Cancer Research (2010)*
- 2009 *Ulliot Lecturer sponsored by the Delaware and Philadelphia Sections of the ACS, University of Pennsylvania and the Chemical Heritage Foundation*
- 2009 *M. Cruickshank Lecturer at the Gordon Research Conference on Polymers*
- 2009 *Turner Alfrey Visiting Professor Lectures at Michigan Molecular Institute (MMI)*
- 2009 *Chevron Phillip Lecture at Virginia Tech*
- 2008 *Distinguished Lecture in Materials at Penn State University*
- 2008 *Distinguished Lecturer in Frontiers of Cancer Nanotechnology at Emory University*
- 2008 *Su Distinguished Lecture in Chemical Engineering, University of Rochester*
- 2007-2008 *Herman S. Bloch Memorial Lecture and the Bloch Medal, University of Chicago*
- 2007 *Ernest C. Mercier Lecture in Entrepreneurial Chemistry, York University*
- *Trent Lott Center Entrepreneurs in Polymer Science Lecture, University of Southern Mississippi (2006)*

- 2006 *Walter Weber Jr. Lectureship*, University of Michigan (Inaugural Speaker)
- 2006 *Distinguished Lecturer, The 65th Frontiers in Chemistry*, Case Western Reserve University
- 2006 *MacLean Lecturer*, McMaster University
- 2005-2006 *Nelson J. Leonard Distinguished Lectures*, School of Chemical Sciences, University of Illinois
- 2005 *Phi Lambda Upsilon / Glaxo Smith Kline Distinguished Lectureship* at NC State University
- 2004 *William H. Rauscher Lecture in Chemistry*, Rensselaer Polytechnic Institute
- 2004 *Milkovich Memorial Lectures*, Department of Polymer Science, University of Akron
- 2004 North Carolina Distinguished Lecturer Award from the NC Section of the ACS

University Service:

- UNC Office of Economic and Business Development (OEBD) Steering Committee Member
- Cancer Strategic Planning Advisory Group, UNC Health Care System (2010 - present)
- Member, Faculty Working Group Steering Committee, Chancellor's Innovation Circle (2010)
- University Cancer Research Fund Oversight Committee (2009 – present) w/ Dean of College of Arts and Sciences, Dean of the School of Pharmacy, Dean of the School of Medicine (Chair), Dean School of Public Health, Director of the Lineberger Cancer Center, Vice Chancellor for Research and Economic Development, Chair Department of Medicine, and Executive Associate Dean for Finance and Administration for the School of Medicine
- Curing Cancer Theme Team Co-leader, UCRF (2009 – present)
- Executive Advisory Committee, Department of Chemistry, University of North Carolina (2010 - present)
- Program Planning Committee, Lineberger Comprehensive Cancer Center (2008 – present)
- Chair, Committee to Facilitate the Launching of Start-up Companies at UNC; Created the Carolina Express License Agreement (<http://research.unc.edu/offices/otd/inventors/starting-a-company/>)
- Founded the Institute for Nanomedicine; Director (2008 – present)
- Founded the Institute for Advanced Materials, Nano Science and Technology; Director (2003 - present)
- Member, Core Planning Committee, Science Complex (2006 – present)

Government and Professional Service:

- Chair, National Academies Committee on “Convergence” in Biomedical Research (2013)
- Co-chair, NSF Committee to Assist Faculty Early Career Development (CAREER) Awardees in continuing their path to research leadership in their fields (2013)
- Member-at-Large, American Association for the Advancement of Science, Section on General Interest in Science and Engineering (2012-2016)
- Member, *Committee on Advancing Institutional Transformation for Minority Women in Academia* on behalf of the National Research Council of the National Academies (June 2011 – November 2012)
- Member, NIH Director's Early Independence Award (DP5) Editorial Board (2011-2014)
- Member, Advisory Commission, North Carolina Museum of Natural Sciences (2011-2013)
- GRC Council Selection and Scheduling Committee (S&S) of the Gordon Research Conferences (2010-2016)
- Member, Board of Advisors, North Carolina Science Festival (2010-2012)
- Member, Executive Advisory Committee, United States Manufacturing Competitiveness Initiative, US Council on Competitiveness (2010)
- Member, College of Reviewers (by invitation only), Center for Scientific Review, NIH (2010-2012)
- Member, Advisory Committee for the NSF Directorate of Mathematical and Physical Sciences (MPSAC) (2009-2012)
- Co-Chair, Committee on Effectiveness of National Biosurveillance Systems: BioWatch and the Public Health System, National Academy of Sciences and the National Research Council (2008-2009)
- Co-Chair, Materials Engineering Section Peer Committee Member 2006-2009, National Academy of Engineering

- Member, Nanotechnology Technical Advisory Group (nTAG) to the President's Council of Advisors on Science and Technology (PCAST) (2007-2008)
- Member, DARPA's Defense Sciences Research Council (DSRC) (2006-2010)
- Fellow, Defense Sciences Research Council (DSRC) of DARPA (2004-2006)
- Defense Sciences Study Group, Institute for Defense Analysis funded by DARPA (2002-2003)
- Member, National Research Council Board on Chemical Sciences and Technology (2000-2004)

Boards and Councils:

- International Advisory Board, *Angewandte Chemie* (2014 - present)
- Editorial Advisory Board, *ACS Nano* (2012 - present)
- Editorial Board, *Nanomedicine: Nanotechnology, Biology and Medicine*
- Editorial Advisory Board, *Small* (2012 - present)
- Editorial Advisory Board, *ACS Central Science* (2015 - 2018)
- Advisory Board, *Chemical & Engineering News* (2012-2014)
- Board of Directors, *Research Triangle Foundation of North Carolina*; The Research Triangle Park is the leading and largest high technology research and science park in North America, covering 7,000 total acres. Founded in 1959, The Research Triangle Park is developed and managed by the non-profit Research Triangle Foundation of North Carolina. The Foundation is responsible for building and maintaining the physical aspects of the Park; attracting and retaining Park companies; and enhancing the competitive position of the Park and the Triangle region.
- Editorial Advisory Board, *Langmuir* (American Chemical Society: 2012-2014)
- Member, Board of Trustees, Ursinus College (2001- present); Vice Chair (2012-2013); Vice Chair Enrollment and Marketing Committee (2010); Presidential Search Committee (2010)
- Scientific Advisory Board, David H. Koch Institute for Integrative Cancer Research at MIT (2009 -)
- North Carolina School of Science and Math Education Foundation Board
- Co-Chair, National Network of Cancer Centers of Nanotechnology Excellence funded by the National Cancer Institute (w/ Sam Gambhir, Stanford) (2007/2008)
- International Advisory Board, *ChemSusChem* (2007-2012)
- Technology Council, *CCNE of Nanomaterials for Cancer Diagnostics and Therapeutics*, Northwestern University (2006-present)
- Member, Board of Directors, *Council for Entrepreneurial Development* (CED) (2005-2008)
- Scientific Advisory Committee, Center for Nanophase Material Sciences, Oak Ridge National Laboratory (2005 - present)
- Strategic Planning Group on Materials, Duke University (2005)
- Scientific Advisory Board, *Center for Environmentally Beneficial Catalysis*, NSF-ERC, University of Kansas
- Member, Advisory Board for the *Center for Entrepreneurship and Technology Venturing* at the Kenan Flagler Business School at University of North Carolina at Chapel Hill (2002 - present)
- Chair, *National Network of NSF Science and Technology Center Directors*, 2001
- Member, Board of Visitors, *Carolina Environmental Program* (2002-2005)
- Member, Advisory Council, Department of Chemistry, Virginia Tech (2001 - present)
- Green Chemistry Institute Founding Board Member (1999-2001)
- Founding Member, Board of Directors, Center for Environmentally Advanced Technologies (2000 – 2003)
- Editorial Board, *Journal of Supercritical Fluids* (2005-2008)
- Editorial Board, *Macromolecules* (2001-2003)
- Editorial Advisory Board, *Industrial and Engineering Chemistry Research* (2000-2003)
- Editorial Board, *Journal of Polymer Science* (1999 - present)
- Editorial Board, *Polymer Bulletin* (2002-2004)

- Editorial Board, *Journal of Applied Polymer Science* (1992-1999)
- Editorial Advisory Board, *High Performance Polymers* (1994-1999)
- *Synthesis Technical Advisory Board*, The DOW Chemical Company (1996 - 1999)

Technology Transfer and Entrepreneurial Activities

- Carbon, Inc. (<http://www.carbon3d.com>); Co-founder with Alex Ermoshkin and Edward Samulski. Carbon has developed a radical new approach to 3D printing that is > 100 times faster than state-of-the-art 3D printers, employing a continuous liquid interface where 3D objects can literally rise out of the broth within minutes. Initial focus is on professional prototypers that have aspirations to move to low- and medium-volume manufacturing and high valued products for the medical device and pharmaceutical industries.
- Hatteras Venture Partners (<http://hatterasvp.com>); Member, Scientific Advisory Board; along with Herb Boyer, Founder of Genentech; Jim Powell, Founder of LabCorp; Charlie Sanders, Former CEO Glaxo; David King, CEO of LabCorp; Arnie Levine, Former President and CEO of Rockefeller University; Martin Murphy, former CEO of Hipple Cancer Center.
- Reviewer, "Managing University Intellectual Property in the Public Interest"; Committee on Management of University Intellectual Property: Lessons from a Generation of Experience, Research, and Dialogue", National Research Council, 2011.
- Co-authored "*Facilitating the Commercialization of University Innovation: The Carolina Express License Agreement*"; a position paper co-authored with Lesa Mitchell, Ewing Marion Kauffman Foundation; April 2010.
- *Liquidia Technologies, Inc.*, (<http://www.liquidia.com>) Member of the Board of Directors (2004-2013), Consultant and Co-Founder (w/ J. Rolland, G. Denison, B. Maynor, E. T. Samulski and Bruce Boucher); Liquidia is co-opting the fabrication technologies from the computer industry to make vaccines and medicines. The manufacturing process called PRINT™ is licensed from DeSimone's labs at UNC-CH / NCSU. Liquidia develops and manufactures precisely engineered nanoparticles and films for use in a broad range of life and materials science industries. Current areas of focus include targeted delivery of nucleic acids and cytotoxic small molecules; ocular and inhaled therapeutics; vaccines; and featured films for displays. We have raised almost \$60 million as of March 2011, including the first ever equity investment by the Bill and Melinda Gates Foundation in a for-profit biotech. Liquidia's first vaccine product entered clinical trials in Q4 2010.
- Partner with *Synecor* (<http://www.synecor.com/>), a medical devices company which creates new generations of diagnostic/therapeutic technologies and promotes their rapid dissemination into the marketplace. Synecor is led by R. Stack, W. Starling and M. Williams. Companies spun out by us include:
 - *Bioabsorbable Vascular Solutions*, Co-Founder (w/ R. Stack, W. Starling, M. Williams, & R. Langer) and Sci. Adv. Board Member (Founded in August, 2002; Acquired by *Guidant Corporation* [NYSE: GDT] in March, 2003); Technology is based a fully bioabsorbable polymeric drug eluting stents. Now part of Abbott Vascular. In January 2011, Abbott received CE Mark Approval for the sale of our stents in Europe. In January 2013 Abbott began a randomized clinical trial in the USA enrolling 2,250 patients.
- *Noxilizer, Inc.* (<http://www.noxilizer.com/>) Member, Scientific Advisory Board (2006 – 2009); Company solves problems ranging from medical instrument sterilization to chemical and biological agent destruction using proprietary gas technology.
- *MICELL Technologies, Inc.*, (<http://www.micell.com>) Co-Founder (w/ J. B. McClain and T. J. Romack) and Chairman (1996-2003); Technology is based on liquid and supercritical CO₂ for microelectronics fabrication and high performance low surface energy coatings. Micell also pioneered and launched the first liquid CO₂-based garment dry cleaning technology through Hangers Cleaners (<http://www.hangersdrycleaners.com>) (Micell sold

- Hangers to Cool Clean, LLC in 2001). Micell is now actively applying the supercritical coating know-how to medical devices including stents. In 2009 Micell raised an additional \$20 million from VCs and strategic investors.
- Supercritical CO₂ Fluoroolefin Polymerization Technology; Licensed exclusively to DuPont in 1996; DuPont announced investment of \$275 million to commercialize the technology; 2 million lbs/year plant successfully brought on line in March, 2002.

Refereed Publications:

(DeSimone has over 39,000 citations to his work as measured by *Google Scholar* in Sept. 2019; DeSimone's Hirsch Index "*h-Index*" = 94, that is he has 94 publications with 94 or more citations; see Hirsch, J. E. *Proc. Nat. Acad. Sci.* **2005**, *46*, 16569)

1. "3D printed absorber for capturing chemotherapy drugs before they spread through the body"; Oh, H. J.; Aboian, M. S.; Yi, M. Y. J.; Maslyn, J. A.; Loo, W. S.; Jiang, X.; Parkinson, D. Y.; Wilson, M. W.; Moore, T.; Yee, C. R.; Robbins, G. R.; Barth, F. M.; DeSimone, J. M.; Hetts, S. W.; Balsara, N. P. *ACS Cent. Sci.* **2019**, *5*(3), 419-427.
2. "Role of Linker Length and Antigen Density in Nanoparticle Peptide Vaccine"; Kapadia, C. H.; Tian, S. M.; Perry, J. L.; Luft, J. C.; DeSimone, J. M. *ACS Omega* **2019**, *4*(3), 5547-5555.
3. "Difference between approximate and rigorously measured transference numbers in fluorinated electrolytes"; Shah, D. B.; Nguyen, H. Q.; Grundy, L. S.; Olson, K. R.; Mecham, S. J.; DeSimone, J. M.; Balsara, N. P. *Phys. Chem. Chem. Phys.* **2019**, *21*(15), 7857-7866.
4. "Spatially controlled coating of continuous liquid interface production microneedles for transdermal protein delivery"; Caudill, C. L.; Perry, J. L.; Tian, S.; Luft, J. C.; DeSimone, J. M. *J. Control. Release* **2018**, *284*, 122-132. (# of citations = 7)
5. "Use of iontophoresis for the treatment of cancer"; Byrne, J. D.; Yeh, J. J.; DeSimone, J. M. *J. Control. Release* **2018**, *284*, 144-151. (# of citations = 8)
6. "Formulation of high-performance dry powder aerosols for pulmonary protein delivery"; Wilson, E. M.; Luft, J. C.; DeSimone, J. M. *Pharmaceutical Research* **2018**, *35*, 195. (# of citations = 2)
7. "Controlling release from 3D printed medical devices using CLIP and drug-loaded liquid resins"; Bloomquist, C. J.; Mecham, M. B.; Paradzinsky, M. D.; Januszewicz, R.; Warner, S. B.; Luft, J. C.; Mecham, S. J.; Wang, A. Z.; DeSimone, J. M. *J. Control. Release* **2018**, *278*, 9-23. (# of citations = 15)
8. "Nanoparticle delivery of a tetravalent E protein subunit vaccine induces balanced, type-specific neutralizing antibodies to each dengue virus serotype"; Metz, S. W.; Thomas, A.; Brackbill, A.; Xianwen, Y.; Stone, M.; Horvath, K.; Miley, M. J.; Luft, J. C.; DeSimone, J. M.; Tian, S. M.; de Silva, A. M. *PLoS Neglected Tropical Diseases* **2018**, *12*, e0006793. (# of citations = 2)
9. "Impact of formulation on the iontophoretic delivery of the FOLFIRINOX regimen for the treatment of pancreatic cancer"; Byrne, J. D.; Jajja, M. R. N.; O'Neill, A. T.; Schorzman, A. N.; Keeler, A. W.; Luft, J. C.; Zamboni, W. C.; DeSimone, J. M.; Yeh, J. J. *Cancer Chemotherapy and Pharmacology* **2018**, *81*, 991-998. (# of citations = 1)
10. "Optimization of Surface Display of DENV2 E Protein on a Nanoparticle to Induce Virus Specific Neutralizing Antibody Responses"; Coffman, J. E.; Metz, S. W.; Brackbill, A.; Paul, M.; Miley, M. J.; DeSimone, J. M.; Luft, C. J.; de Silva, A.; Tian, S. *Bioconjugate Chemistry* **2018**, *29*, 1544-1552. (# of citations = 2)

11. "Extending antigen release from particulate vaccines results in enhanced antitumor immune response"; Kapadia, C. H.; Tian, S.; Perry, J. L.; Sailer, D.; Luft, J. C.; DeSimone, J. M. *J. Control. Release* **2018**, 269, 393-404. (# of citations = 4)
12. "Crosslinked perfluoropolyether solid electrolytes for lithium ion transport"; Devaux, D.; Villaluenga, I.; Bhatt, M.; Shah, D.; Chen, X. C.; Thelen, J.L.; DeSimone, J. M.; Balsara, N.P. *Solid State Ion.* **2017**, 310, 71-80. (# of citations = 9)
13. "Antigen-capturing nanoparticles improve the abscopal effect and cancer immunotherapy"; Min, Y. Z.; Roche, K. C.; Tian, S. M.; Eblan, M. J.; McKinnon, K. P.; Caster, J. M.; Chai, S. J.; Herring, L. E.; Zhang, L. Z.; Zhang, T.; DeSimone, J. M.; Tepper, J. E.; Vincent, B. G.; Serody, J. S.; Wang, A. Z. *Nature Nanotechnology* **2017**, 12(9), 877-882. (# of citations = 114)
14. "Mechanism of ion transport in perfluoropolyether electrolytes with a lithium salt"; Timachova, K.; Chintapalli, M.; Olson, K. R.; Mecham, S. J.; DeSimone, J. M.; Balsara, N. P. *Soft Matter* **2017**, 13(32), 5389-5396. (# of citations = 9)
15. "Incipient microphase separation in short chain perfluoropolyether-block-poly(ethylene oxide) copolymers"; Chintapalli, M.; Timachova, K.; Olson, K. R.; Banaszak, M.; Thelen, J. L.; Mecham, S. J.; DeSimone, J. M.; Balsara, N. P. *Soft Matter* **2017**, 13(22), 4047-4056. (# of citations = 3)
16. "Mediating Passive Tumor Accumulation through Particle Size, Tumor Type, and Location"; Perry, J. L.; Reuter, K. G.; Luft, J. C.; Pecot, C. V.; Zamboni, W.; DeSimone, J. M. *Nano Letters* **2017**, 17(5), 2879-2886. (# of citations = 55)
17. "Effect of Anion Size on Conductivity and Transference Number of Perfluoroether Electrolytes with Lithium Salts"; Shah, D. B.; Olson, K. R.; Karny, A.; Mecham, S. J.; DeSimone, J. M.; Balsara, N. P. *J. Electrochem. Soc.* **2017**, 164(14), A3511-A3517. (# of citations = 11)
18. "Docetaxel-Loaded PLGA Nanoparticles Improve Efficacy in Taxane-Resistant Triple-Negative Breast Cancer"; Bowerman, C. J.; Byrne, J. D.; Chu, K. S.; Schorzman, A. N. Keeler, A. W.; Sherwood, C. A.; Perry, J. L.; Luft, J. C.; Darr, D. B.; Deal, A. M.; Napier, M. E.; Zamboni, W. C.; Sharpless, N. E.; Perou, C. M.; DeSimone, J. M. *Nano Letters* **2017**, 17(1), 242-248. (# of citations = 16)
19. "Co-opting Moore's law: Therapeutics, vaccines and interfacially active particles manufactured via PRINT®"; DeSimone, J. M. *J. Control. Release* **2016**, 240, 541-543. (# of citations = 6)
20. "Novel materials"; Rogers, J. A. & DeSimone, J. M. *Proc. Natl. Acad. Sci. USA* **2016**, 113(42), 11667-11669. (# of citations = 3)
21. "Layerless fabrication with continuous liquid interface production"; Januszewicz, R.; Tumbleston, JR; Quintanilla, AL; Mecham, SJ; DeSimone, JM. *Proc. Natl. Acad. Sci. USA* **2016**, 113(42), 11703-11708. (# of citations = 70)
22. "Precisely Molded Nanoparticle Displaying DENV-E Proteins Induces Robust Serotype-Specific Neutralizing Antibody Responses"; Metz, S. W.; Tian, S.; Hoekstra, G.; Yi, X.; Stone, M.; Horvath, K.; Miley, M. J.; DeSimone, J. M.; Luft, C. J.; de Silva, A. M. *PLoS Neglected Tropical Diseases* **2016**, 10, e0005071. (# of citations = 18)
23. "Reduction sensitive PEG hydrogels for co-delivery of antigen and adjuvant to induce potent CTLs"; Kapadia, C. H.; Tian, S.; Perry, J. L.; Luft, J. C.; DeSimone, J. M. *Molecular Pharmaceutics* **2016**, 13(10), 3381-3394. (# of citations = 13)
24. "Organic Polymer Chemistry in the Context of Novel Processes"; DeSimone, J. M.; Mecham, S. J.; Farrell, C. L. *ACS Central Science* **2016**, 2, 588-597. (# of citations = 2)

25. "Liquid Perfluoropolyether Electrolytes with Enhanced Ionic Conductivity for Lithium Battery Applications"; Olson, K. R.; Wong, D. H. C.; Chintapalli, M.; Timachova, K.; Januszewicz, R.; Daniel, W. F. M.; Mecham, S.; Sheiko, S.; Balsara, N. P.; DeSimone, J. M. *Polymer* **2016**, *100*, 126-133. (# of citations = 22)
26. "Single-Step Fabrication of Computationally Designed Microneedles by Continuous Liquid Interface Production"; Johnson, A. R.; Caudill, C. L.; Tumbleston, J. R.; Bloomquist, C. J.; Moga, K. A.; Ermoshkin, A.; Shirvanyants, D.; Mecham, S. J.; Luft, J. C.; DeSimone, J. M. *PLoS ONE* **2016**, *11*(9): e0162518. (# of citations = 38)
27. "Conductivity of carbonate- and perfluoropolyether-based electrolytes in porous separators"; Devaux, D.; Chang, Y. H.; Villaluenga, I.; Chen, X. C.; Chintapalli, M.; DeSimone, J. M.; Balsara, N. P. *Journal of Power Sources* **2016**, *323*, 158-165. (# of citations = 9)
28. "Efficacy and pharmacokinetics of a modified acid-labile docetaxel-PRINT® nanoparticle formulation against non-small-cell lung cancer brain metastases"; Sambade, M.; Deal, A.; Schorzman, A.; Luft, J. C.; Bowerman, C.; Chu, K.; Karginova, O.; Van Swearingen, A.; Zamboni, W.; DeSimone, J. M.; Anders, C. K. *Nanomedicine (Lond.)* **2016**, *11*, 1947-1955. (# of citations = 6)
29. "Relationship between Conductivity, Ion Diffusion, and Transference Number in Perfluoropolyether Electrolytes"; Chintapalli, M.; Timachova, K.; Olson, K. R.; Mecham, S. J.; Devaux, D.; DeSimone, J. M.; Balsara, N. P. *Macromolecules* **2016**, *49*(9), 3508-3515. (# of citations = 50)
30. "Pulmonary Delivery of Butyrylcholinesterase as a Model Protein to the Lung"; Rahhal, T. B.; Fromen, C. A.; Wilson, E. M.; Kai, M. P.; Shen, T. W.; Luft, J. C.; DeSimone, J. M. *Molecular Pharmaceutics* **2016**, *13*(5), 1626-1635. (# of citations = 8)
31. "Subtumoral analysis of PRINT nanoparticle distribution reveals targeting variation based on cellular and particle properties"; Roode, L. E.; Brighton, H.; Bo, T.; Perry, J. L.; Parrott, M. C.; Kersey, F.; Luft, J. C.; Bear, J. E.; DeSimone, J. M.; Davis, I. J. *Nanomedicine: Nanotechnology, Biology, and Medicine* **2016**, *12*(4), 1053-1062. (# of citations = 12)
32. "Nanoparticle surface charge impacts distribution, uptake and lymph node trafficking by pulmonary antigen-presenting cells"; Fromen, C. A.; Rahhal, T. B.; Robbins, G. R.; Kai, M. P.; Shen, T. W.; Luft, J. C.; DeSimone, J. M. *Nanomedicine: Nanotechnology, Biology, and Medicine* **2016**, *12*(3), 677-687. (# of citations = 51)
33. "Particles for Local Delivery of Proteins Using Intra-Articular Route"; Khodabandehlou, K.; Tian, S.; Luft, J. C.; Khan, S. A.; DeSimone, J. M. *Adv. Healthc. Mater.* **2016**, *5*(6), 653-658. (# of citations = 4)
34. "Iontophoretic device delivery for the localized treatment of pancreatic ductal adenocarcinoma"; Byrne, J. D.; Jajja, M. R. N.; Schorzman, A. N.; Keeler, A. W.; Luft, J. C.; Zamboni, W. C.; DeSimone, J. M.; Yeh, J. J. *Proceedings of the National Academy of Sciences* **2016**, *113*(8), 2200-2205. (# of citations = 8)
35. "Tumor presence induces global immune changes and enhances nanoparticle clearance"; Kai, M. P.; Brighton, H. E.; Fromen, C. A.; Shen, T. W.; Luft, J. C.; Luft, Y. E.; Keeler, A. W.; Robbins, G. R.; Ting, J. P. Y.; Zamboni, W. C.; Bear, J. E.; DeSimone, J. M. *ACS Nano* **2016**, *10*(1), 861-870. (# of citations = 19)
36. "Compliant glass-polymer hybrid single ion-conducting electrolytes for lithium batteries"; Villaluenga, I.; Wujcik, K. H.; Tong, W.; Devaux, D.; Wong, D. H. C.; DeSimone, J. M.; Balsara, N. P. *Proceedings of the National Academy of Sciences* **2016**, *113*(1), 52-57. (# of citations = 54)

37. "Targeted PRINT hydrogels: The role of nanoparticle size and ligand density on cell association, biodistribution, and tumor accumulation"; Reuter, K. G.; Perry, J. L.; Kim, D.; Luft, J. C.; Liu, R. H.; DeSimone, J. M. *Nano Letters* **2015**, *15*(10), 6371-6378. (# of citations = 58)
38. "Nanoparticulate immunotherapy for cancer"; Kapadia, C. H.; Perry, J. L.; Tian, S. M.; Luft, J. C.; DeSimone, J. M. *J. Control. Release* **2015**, *219*, 167-180. (# of citations = 48)
39. "Towards programming immune tolerance through geometric manipulation of phosphatidylserine"; Roberts, R. A.; Eitas, T. K.; Byrne, J. D.; Johnson, B. M.; Short, P. J.; McKinnon, K. P.; Reisdorf, S.; Luft, J. C.; DeSimone, J. M.; Ting, J. P. Y. *Biomaterials* **2015**, *75*, 1-10. (# of citations = 18)
40. "Reductively Responsive Hydrogel Nanoparticles with Uniform Size, Shape, and Tunable Composition for Systemic siRNA Delivery in Vivo"; Ma, D.; Tian, S. M.; Baryza, J.; Luft, J. C.; DeSimone, J. M. *Molecular Pharmaceutics* **2015**, *12*(10), 3518-3526. (# of citations = 20)
41. "Distribution and cellular uptake of PEGylated polymeric particles in the lung towards cell-specific targeted delivery"; Shen, T. W.; Fromen, C. A.; Kai, M. P.; Luft, J. C.; Rahhal, T. B.; Robbins, G. R.; DeSimone, J. M. *Pharmaceutical Research* **2015**, 10.1007/s11095-015-1701-7. (# of citations = 12)
42. "Rapid and persistent delivery of antigen by lymph node-targeting PRINT nanoparticle vaccine carrier to promote humoral immunity"; Mueller, S. N.; Tian, S.; DeSimone, J. M. *Molecular Pharmaceutics* **2015**, *12*(5), 1356-1365. (# of citations = 53)
43. "Biodistribution and trafficking of hydrogel nanoparticles in adult mosquitoes"; Paquette, C. C. H.; Phanse, Y.; Perry, J. L.; Sanchez-Vargas, I.; Airs, P. M.; Dunphy, B. M.; Xu, J.; Carlson, J. O.; Luft, J. C.; DeSimone, J. M.; Bartholomay, L. C.; Beaty, B. J. *PLoS Neglected Tropical Diseases* **2015**, *9*(5), e0003745. (# of citations = 6)
44. "Biodistribution and toxicity studies of PRINT hydrogel nanoparticles in mosquito larvae and cells"; Phanse, Y.; Dunphy, B. M.; Perry, J. L.; Airs, P. M.; Paquette, C. C. H.; Carlson, J. O.; Xu, J.; Luft, J. C.; DeSimone, J. M.; Beaty, B. J.; Bartholomay, L. C. *PLoS Neglected Tropical Diseases* **2015**, *9*(5), e0003735. (# of citations = 10)
45. "Preparation and biological evaluation of synthetic and polymer-encapsulated congeners of the antitumor agent pactamycin: Insight into functional group effects and biological activity"; Sharpe, R. J.; Malinowski, J. T.; Sorana, F.; Luft, J. C.; Bowerman, C. J.; DeSimone, J. M.; Johnson, J. S. *Bioorg. Med. Chem.* **2015**, *23*(8), 1849-1857. (# of citations = 15)
46. "Analysis of human innate immune responses to PRINT fabricated nanoparticles with cross validation using a humanized mouse model"; Robbins, G. R.; Roberts, R. A.; Guo, H.; Reuter, K.; Shen, T.; Sempowski, G. D.; McKinnon, K. P.; Su, L.; DeSimone, J. M.; Ting, J. P. Y. *Nanomedicine* **2015**, *11*(3), 589-599. (# of citations = 10)
47. "Continuous liquid interface production of 3D objects"; Tumbleston, J. R.; Shirvanyants, D.; Ermoshkin, N.; Januszewicz, R.; Johnson, A. R.; Kelly, D.; Chen, K.; Pinschmidt, R.; Rolland, J. P.; Ermoshkin, A.; Samulski, E. T.; DeSimone, J. M. *Science* **2015**, *347*(6228), 1349-1352. (# of citations = 755)
48. "Silylated precision particles for controlled release of proteins"; Khodabandehlou, K.; Kumbhar, A. S.; Habibi, S.; Pandya, A. A.; Luft, J. C.; Khan, S. A.; DeSimone, J. M. *ACS Appl. Mater. Interfaces* **2015**, *7*(10), 5756-5767. (# of citations = 4)
49. "Evaluation of drug loading, pharmacokinetic behavior, and toxicity of a cisplatin-containing hydrogel nanoparticle"; Kai, M. P.; Keeler, A. W.; Perry, J. L.; Reuter, K. G.; Luft, J. C.; O'Neal, S. K.; Zamboni, W. C.; DeSimone, J. M. *J. Control. Release* **2015**, *204*, 70-77. (# of citations = 29)

50. "Local Iontophoretic Administration of Cytotoxic Therapies to Solid Tumors"; Byrne, J. D.; Jajja, M. R. N.; O'Neill, A. T.; Bickford, L. R.; Keeler, A. W.; Hyder, N.; Wagner, K.; Deal, A.; Little, R. E.; Moffitt, R. A.; Stack, C.; Nelson, M.; Brooks, C. R.; Lee, W.; Luft, J. C.; Napier, M. E.; Darr, D.; Anders, C. K.; Stack, R.; Tepper, J. E.; Wang, A. Z.; Zamboni, W. C.; Yeh*, J. J.; DeSimone*, J. M. *Sci. Transl. Med.* **2015**, *7*, 273ra14. (# of citations = 33)
51. "Controlled Analysis of Nanoparticle Charge on Mucosal and Systemic Antibody Responses Following Pulmonary Immunization"; Fromen, C. A.; Robbins, G. R.; Shen, T. W.; Kai, M. P.; Ting*, J. P. Y.; DeSimone*, J. M. *Proceedings of the National Academy of Sciences* **2015**, *112*(2), 488-493. (# of citations = 71)
52. "Phase Behavior and Electrochemical Characterization of Blends of Perfluoropolyether, Poly(ethylene glycol), and a Lithium Salt"; Wong, D. H. C.; Vitale, A.; Devaux, D.; Taylor, A.; Pandya, A.; Hallinan, D. T.; Thelen, J. L.; Mecham, S. J.; Lux, S. F.; Lapedes, A. M.; Resnick, P. R.; Meyer, T. J.; Kostecky, R. M.; Balsara, N. P.; DeSimone, J. M.; *Chem. Mater.* **2015**, *27*(2), 597-603. (# of citations = 35)
53. "Calibration-quality cancer nanotherapeutics"; Perry, J. L.; Kai, M. P.; Reuter, K. G.; Bowerman, C.; Luft, J. C.; DeSimone, J. M.; *Cancer Treatment and Research* **2015**, *166*, 275-291. (# of citations = 5)
54. "The Role of Diversity in Commercializing Basic Science"; DeSimone, J. M.; *Research-Technology Management* **2014**, *57*(6), 16-20. (# of citations = 2)
55. "A Versatile Acid-labile Linker for Antibody-drug Conjugates"; Finniss, M. C.; Chu, K. S.; Bowerman, C. J.; Luft, J. C.; Haroon, Z. A.; DeSimone*, J. M. *Med. Chem. Comm.* **2014**, *5*(9), 1355-1358. (# of citations = 8)
56. "Design of Asymmetric Particles Containing a Charged Interior and a Neutral Surface Charge: Comparative Study on in vivo Circulation of Polyelectrolyte Microgels"; Chen, K.; Xu, J.; Luft, J. C.; Shaomin, T.; Raval, J.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2014**, *136*(28), 9947-9952. (# of citations = 33)
57. "Driving Convergence with Human Diversity"; DeSimone, J. M.; Farrell, C. L. *Sci. Transl. Med.* **2014**, *6*, 238ed11. (# of citations = 4)
58. "Metronomic docetaxel in PRINT® nanoparticles and EZH2 silencing have synergistic antitumor effect in ovarian cancer"; Gharpure, K. M.; Chu, K. S.; Bowerman, C. Miyake, T.; Pradeep, S.; Mangala, L. S.; Han, H.-D.; Rupaimoole, R.; Wu, S.; Dalton, H. J.; Napier, M. E.; Lopez-Berestein, G.; DeSimone, J. M.; Sood, A. *Molecular Cancer Genetics* **2014**, *13*, 1750-1757. (# of citations = 30)
59. "PRINT Nanoparticles with Tumor Selective Alkyl Silyl Ether Docetaxel Prodrug Reduces Toxicity"; Chu, K. S.; Finniss, M. C.; Schorzman, A. N.; Kuijter, J. L.; Luft, J. C.; Bowerman, J.; Napier, M. E.; Haroon, Z. A.; Zamboni, W. C.; DeSimone*, J. M. *Nano Letters* **2014**, *14*(3), 1472-1476. (# of citations = 35)
60. "Nonflammable Perfluoropolyether-based Electrolytes for Lithium-ion Batteries"; Wong, D. H.C.; Thelen, J.; Fu, Y.; Devaux, D.; Pandya, A. A.; Battaglia, V.; Balsara, N. P.; DeSimone*, J. M.; *PNAS* **2014**, *111*(9), 3327-3331. (# of citations = 119)
61. "Nanotechnology: An Enduring Bridge Between Engineering and Medicine"; Petrosko, S. H.; Fromen, C. A.; Auyeung, E.; DeSimone, J. M.; Mirkin, C. A. *The Bridge: Linking Engineering and Society*; National Academy of Engineering, **2013**, pp. 7-15. (# of citations = 3)

62. "RNA Replicon Delivery via Lipid-Complexed PRINT Protein Particles"; Xu, J.; Luft, J. C.; Yi, X.; Tian, S.; Owens, G.; Wang, J.; Johnson, A.; Berglund, P.; Smith, J.; Napier, M.; DeSimone, J. M. *Molecular Pharmaceutics* **2013**, *10*(9), 3366-3374. (# of citations = 28)
63. "Nanoparticle Drug Loading as a Design Parameter to Improve Docetaxel Pharmacokinetics and Efficacy"; Chu, K. S.; Schorzman, A. N.; Finniss, M. C.; Bowerman, C. J.; Peng, L.; Luft, J. C.; Madden, A.; Wang, A. Z.; Zamboni, W. C.; DeSimone*, J. M. *Biomaterials* **2013**, *34*(33), 8424-8429. (# of citations = 68)
64. "Rapidly-Dissolvable Microneedle Patches via a Highly Scalable and Reproducible Soft Lithography Approach"; Moga, K. A.; Bickford, L. R.; Geil, R. D.; Dunn, S. S.; Pandya, A. A.; Wang, Y.; Fain, J. H.; Archuleta, C. F.; O'Neill, A. T. O.; DeSimone*, J. M. *Advanced Materials* **2013**, *25*(36), 5060. (# of citations = 72)
65. "Scalable Manufacture of Built-to-Order Nanomedicine: Spray-Assisted Layer-by-Layer Functionalization of PRINT Nanoparticles"; Morton, S. W.; Herlihy, K. P.; Shopsowitz, K. E.; Deng, Z. J.; Chu, K. S.; Bowerman, C. J.; DeSimone, J. M.; Hammond, P. T. *Advanced Materials* **2013**, *25*(34), 4707. (# of citations = 134)
66. "Synthesis and Characterization of Monodisperse Uniformly Shaped Respirable Aerosols"; Fromen, C. A.; Shen, T. W.; Larus, A. E.; Mack, P.; Luft, J. C.; Maynor, B. W.; DeSimone*, J. M. *AIChE Journal* **2013**, *59*(9), 3184-3194 (Special Issue: Founders Tribute to Neal R. Amundson). (# of citations = 14)
67. "Generating Better Medicines for Cancer"; Dunn, Stuart; Perry, Jillian; Chen, Kai; Byrne, James; DeSimone*, J. M.; *ACS Macro Letters* **2013**, *2*(5), 393-397. (# of citations = 11)
68. "Nanoparticle clearance is governed by Th1/Th2 immunity and strain background"; Jones, S. W.; Roberts, R.; Robbins, G. R.; Perry, J. L.; Kai, M. P.; Chen, K.; Bo, T.; Napier, M.; Ting, J.P.Y.; DeSimone, J. M.; Bear*, J. E. *J. Clinical Investigation* **2013**, *123*(7), 3061-3073. (# of citations = 125)
69. "Analysis of the Murine Immune Response to Pulmonary Delivery of Precisely Fabricated Nano- and Microscale Particles"; Roberts, R. A.; Shen, T.; Allen, I. C.; Hasan, W.; DeSimone*, J. M.; Ting*, J, P-Y. *Plos One* **2013**, *8*(4), e62115. (# of citations = 42)
70. "The Future of the Particle Replication in Non-wetting Templates (PRINT) Technology"; Xu, J.; Wong, D. H. C.; Byrne, J. D. Chen, K.; Bowerman, C.; DeSimone*, J. M. *Angewandte Chemie* **2013**, *52*, 6580-6589. (# of citations = 93)
71. "Development of a Nanoparticle-based Influenza Vaccine Using the PRINT Technology"; Galloway, A. L.; Murphy, A.; DeSimone, J. M.; Di, J.; Hermann, J. P.; Hunter, M. E.; Kindig, J. P.; Malinoski, F. J.; Rumley, M. A.; Stoltz, D. A.; Templeman, T. S.; Hubby, B. *Nanomedicine: Nanotechnology, Biology, and Medicine* **2013**, *9*, 523-531. (# of citations = 63)
72. "PRINT Technology: A Versatile Platform for Novel Applications in Nanomedicine"; Byrne, J. D.; Hasan, W.; Blake, S.; Farrell, C.; DeSimone, J. M. in *Nanomaterials for Pharmaceutical Scientists*, Editors: S. Yin & A. Wei; (Wiley: New York), **2013**. (# of citations = not tracked by S.C.I.)
73. "The Effect of Particle Size on the Biodistribution of Low-modulus Hydrogel PRINT Particles"; Merkel, T. J.; Chen, K.; Jones, S. W.; Napier, M. E.; Zamboni, W. E.; Desimone, J. M. *J. Controlled Release* **2012**, *162*, 37-44. (# of citations = 79)
74. "Plasma, Tumor and Tissue Pharmacokinetics of Docetaxel Delivered via Nanoparticles of Different Sizes and Shapes in Mice Bearing SKOV-3 Human Ovarian Carcinoma Xenograft"; Chu, K.S.; Hasan, W.; Rawal, S.; Walsh, M. D.; Enlow, E. M.; Luft,

- J. C.; Bridges, A. S.; Kuijer, J. I.; Napier, M. E.; Zamboni, W. C.; DeSimone*, J. M. *Nanomedicine: Nanotechnology, Biology and Medicine* **2012**, 9(5), 686-693. (# of citations = 102)
75. DeSimone, J. M.; Wang, J.-Y.; Wang, Y. "Particle Replication in Non-wetting Templates: A Platform for Engineering Shape- and Size-Specific Janus Particles"; in *Janus Particle Synthesis, Self-Assembly and Applications*; Eds: Jiang, S. and Granick, S. 2012; pp. 90 – 107. (# of citations = 3)
76. "Low Modulus Biomimetic Microgel Particles with High Loading of Hemoglobin"; Chen, K.; Merkel, T.; Pandya, A.; Napier, M.; Luft, C.; Daniel, W.; Sheiko, S.; DeSimone*, J. M. *Biomacromolecules* **2012**, 13(9), 2748-59. (# of citations = 59)
77. "Microfabricated Engineered Particle Systems for Respiratory Drug Delivery and Other Pharmaceutical Applications"; Garcia, A.; Mack, P.; Williams, S.; Fromen, C.; Shen, T.; Tully, J.; Pillai, J.; Kuehl, P.; Napier, M.; DeSimone, J. M.; Maynor, B. *W. J. Drug Delivery* **2012**, 2012, 941243. (# of citations = 50)
78. "PEGylated PRINT Nanoparticles: The Impact of PEG Density on Protein Binding, Macrophage Association, Biodistribution, and Pharmacokinetics"; Perry, J.; Reuter, K. G.; Kai, M. P.; Herlihy, K. P.; Jones, S. W.; Luft, C.; Napier, M.; Bear, J. E.; DeSimone, J. M.; *Nano Letters*, **2012**, 12(10), 5304-10. (# of citations = 407)
79. "Effect of Aspect Ratio and Deformability on Nanoparticle Extravasation through Nanopores"; Kersey, F.; Merkel, T.; Perry, J.; Napier, M.; DeSimone, J. M. *Langmuir* **2012**, 28(23), 8773. (# of citations = 54)
80. "Rendering Protein-based Particles Transiently Insoluble for Therapeutic Applications"; Xu, J.; Wang, J.; Luft, J.; Tian, S.; Owens, G.; Pandya, A.; Berglund, P.; Pohlhaus, P.; Maynor, B.; Napier, M.; DeSimone, J. M. *J. Am. Chem. Soc.* **2012**, 134(21), 8774. (# of citations = 49)
81. "Incorporation and Controlled Release of Silyl Ether Pro-drugs from PRINT Nanoparticles"; Parrott, M.; Finnis, M.; Luft, J.; Pandya, A.; Gullapalli, A.; Napier, M.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2012**, 134, 7978-7982. (# of citations = 88)
82. "Reductively responsive siRNA-conjugated Hydrogel Nanoparticles for Gene Silencing"; Dunn, S.; Tian, S.; Blake, S.; Wang, J.; Galloway, A.; Murphy, A.; Pohlhaus, P.; Rolland, J.; Napier, M.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2012**, 134, 7423-7430. (# of citations = 129)
83. "*In vitro* and *in vivo* assessment of targeting lipid-based nanoparticles to the epidermal growth factor-receptor (EGFR) using a novel Heptameric Z(EGFR) domain"; Benhabbour, S. R.; Luft, J. C.; Kim, D.; Jain, A.; Wadhwa, S.; Parrott, M. C.; Liu, R.; DeSimone, J. M.; Mumper*, R. J. *J. Control Release* **2012**, 158(1), 63-71. (# of citations = 35)
84. "Engineering Nanomedicines Using Stimuli-responsive Biomaterials"; Wang, Y.; Byrne, J. D.; Napier, M. E.; DeSimone*, J. M. *Advanced Drug Delivery Reviews* **2012**, 64, 1021-1030. (# of citations = 66)
85. "Delivery of Multiple siRNAs Using Lipid-coated PLGA Nanoparticles for treatment of Prostate Cancer"; Hasan, W.; Chu, K.; Gullapalli, A.; Dunn, S. S.; Enlow, E.; Luft, J. C.; Tian, S.; Napier, M.E.; Pohlhaus, P. D.; Rolland, J. P.; DeSimone*, J. M. *Nano Letters* **2012**, 12, 287-292. (# of citations = 111)
86. "Tuning Multiphase Amphiphilic Rods to Direct Self-Assembly"; Wang, J.-Y.; Wang, Y.; Sheiko, S.; Betts, D.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2012**, 134(13), 5801-5806. (# of citations = 54)
87. "From Traditional Polymer Science to Nanomedicine: The Interplay Between Disciplines to Drive Innovation"; DeSimone, J.; *Nanomedicine* **2012**, 7(8), 1125-1128. (# of citations = 1)

88. "Drug Delivery: Relieving PEGylation"; Parrott, M. C.; DeSimone*, J. M. *Nature Chemistry* **2011**, 4(1), 13. (# of citations = 50)
89. "Investigation of the role of hydrophilic chain length in amphiphilic perfluoropolyether/poly(ethylene glycol) networks: towards high-performance antifouling coatings"; Wang, Y.; Pitet, L. M.; Finlay, J. A.; Brewer, L. H.; Cone, G.; Betts, D. E.; Callow, M. E.; Callow, J. A.; Wendt, D. E.; Hillmyer, M. A.; DeSimone, J. M. *Biofouling* **2011**, 27(10), 1139–1150. (# of citations = 62)
90. "Shear Thickening and Jamming in Densely Packed Suspensions of Different Particle Geometries"; Brown, E.; Zhang, H.; Forman, N. A.; Maynor, B. W.; Betts, D. E.; DeSimone, J. M.; Jaeger, H. M. *Physical Review E*. **2011**, 84 (3), 031408. (# of citations = 65)
91. "Amphiphilic Co-Networks with Moisture-Induced Surface Segregation for High-Performance Nonfouling Coatings"; Wang, Y.; Finlay, J.; Betts, D.; Merkel, T.; Luft, J. C.; Callow, M.; Callow, J.; DeSimone*, J. M. *Langmuir* **2011**, 27(17), 10365-10369. (# of citations = 62)
92. "Biomimetic Microlens Array with Antireflective "Moth-eye" Surface"; Ko, D.-H.; Tumbleston, J. R.; Henderson, K. J.; Euliss, L. E.; DeSimone, J. M.; Lopez, R.; Samulski*, E. T. *Soft Matter* **2011**, 7, 6404-6407. (# of citations = 101)
93. "PRINT: A Novel Platform Toward Shape and Size Specific Nanoparticle Theranostics"; Perry, J. L.; Herlihy, K. P.; Napier, M. E.; DeSimone*, J. M. *Accounts of Chemical Research* **2011**, 44(10), 990-998. (# of citations = 211)
94. "More Effective Nanomedicines Through Particle Design"; Wang, J.; Byrne, J. D.; Napier, M. E.; DeSimone*, J. M. *Small* **2011**, 7(14), 1919-1931. (# of citations = 318)
95. Ashley L. Galloway, Andrew Murphy, Jason P. Rolland, Kevin P. Herlihy, Robby A. Petros, Mary E. Napier, and Joseph M. DeSimone; "Micromolding for the Fabrication of Biological Microarrays" in *Biological Microarrays: Methods and Protocols*; Eds A. Khademhosseini; K.-Y. Suh; M. Zourob; 2011; pp. 249-260. (# of citations = 5)
96. "Novel Platforms for Vascular Carriers with Controlled Geometry"; Pillai, J.; Dunn, S. S.; Napier, M. E.; DeSimone*, J. M. *International Union of Biochemistry and Molecular Biology: Life* **2011**, 63(8), 596-606. (# of citations = 9)
97. "Influence of the Fluid-to-Film transition on Photophysical Properties of MLCT Excited States in a Polymerizable Dimethacrylate Fluid"; Knight, T. E.; Goldstein, A. P.; Brennaman, M. K.; Cardolaccia, T.; Pandya, A.; DeSimone, J. M.; Meyer*, T. J. *J. Phys. Chem.* **2011**, 115, 64-70. (# of citations = 20)
98. "Dodging Drug-resistant Cancer with Diamonds"; Merkel, T. J.; DeSimone*, J. M. *Science Translational Medicine* **2011**, 3, 1-3. (# of citations = 30)
99. "Potent Engineered PLGA Nanoparticles by Virtue of Exceptionally High Chemotherapeutic Loadings"; Enlow, E. M.; Luft, C.; Napier, M. E.; DeSimone*, J. M. *Nano Letters* **2011**, 11(2), 808-813. (# of citations = 114)
100. "The Carolina Center of Cancer Nanotechnology Excellence: Past Accomplishments and Future Perspectives"; Juliano, R. L.; Sunnarborg, S.; DeSimone, J.; Haroon, Z. *Nanomedicine* **2011**, 6(1), 19-24. (# of citations = 1)
101. "Photocurable Amphiphilic Perfluoropolyether/Poly(ethylene glycol) Networks for Fouling-Release Coatings"; Wang, Y.; Betts, D. E.; Finlay, J. A.; Brewer, L.; Callow, M. E.; Callow, J. A.; Wendt, D. E.; DeSimone*, J. M. *Macromolecules* **2011**, 44(4), 878-885. (# of citations = 107)

102. "Generation of a Library of Particles Having Controlled Sizes and Shapes via the Mechanical Elongation of Master Templates"; Wang, Y.; Merkel, T.; Chen, K.; Fromen, C.; Betts, D.; DeSimone*, J. M. *Langmuir* **2011**, 27(2), 524-528. (# of citations = 42)
103. "Using Mechano-biological Mimicry of Red Blood Cells to Extend Circulation Times of Hydrogel Microparticles"; Merkel, T. J.; Jones, S. W.; Herlihy, K. P.; Kersey, F. R.; Shields, A. R.; Napier, M. E.; Luft, J. C.; Wu, H.; Zamboni, W. C.; Wang, A. Z.; Bear, J. E.; DeSimone*, J. M. *Proceedings of the National Academy of Sciences* **2011**, 108(2), 586-591. (# of citations = 403)
104. "Ultrathin Cross-Linked Perfluoropolyether Film Coatings from Liquid CO₂ and Subsequent UV Curing"; Kim, J.; Rolland, J. P.; Carbonell, R.; DeSimone, J. M. *Chem. Mater.*, **2010**, 22 (8), 2411-2413. (# of citations = 12)
105. "Tunable Bifunctional Silyl Ether Cross-Linkers for the Design of Acid Sensitive Biomaterials"; Parrott, M. C.; Luft, J. C.; Byrne, J. D.; Fain, J. H.; Napier, M. E.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2010**, 132(50), 17928-17932. (# of citations = 96)
106. "High Modulus, Low Surface Energy, Photochemically Curable Materials"; Hu, Z.; Pitet, L. M.; Hillmyer, M. A.; DeSimone*, J. M. *Macromolecules*, **2010**, 43(24), 10397-10405. (# of citations = 17)
107. "Shear Thickening in Densely Packed Suspensions of Spheres and Rods Confined to Few Layers"; Brown, E.; Zhang, H.; Forman, N.A.; Maynor, B. W.; Betts, D. E.; DeSimone, J. M.; Jaeger, H. M. *Journal of Rheology*. **2010**, 54, 1023-1046. (# of citations = 22)
108. "Hierarchical Control of Polymer Composite Nano- and Micro-structure with Lithography"; Nunes, J.; Ertas, M.; Du, L.; DeSimone*, J. M. *Chemistry of Materials* **2010**, 22(13), 4069-4075. (# of citations = 5)
109. "Challenging Nature's Monopoly on the Creation of Well-defined Particles"; Jeong, W.; Napier, M.; DeSimone*, J. M. *Nanomedicine* **2010**, 5(4). 633-639. (# of citations = 25)
110. "Scalable, Shape-Specific, Top-Down Fabrication Methods for the Synthesis of Engineered Colloidal Particles"; Merkel, T. J.; Herlihy, K. P.; Nunes, J.; Orgel, R. M.; Rolland, J. P.; DeSimone*, J. M. *Langmuir* **2010**, 26 (16), 13086-13096. (# of citations = 175)
111. "The Complex Role of Multivalency in Nanoparticles Targeting the Transferrin Receptor for Cancer Therapies"; Wang, J.; Petros, R. A.; Napier, M. E.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2010**, 132 (32), 11306-11313. (# of citations = 297)
112. "Multifunctional Shape and Size Specific Magneto-Polymer Composite Particles"; Nunes, J.; Herlihy, K.; Mair, L.; Superfine, R.; DeSimone*, J. M. *Nano Letters* **2010**, 10(4), 1113-1119. (# of citations = 62)
113. "Strategies in the Design of Nanoparticles for Therapeutic Applications"; Petros, R. A.; DeSimone*, J. M. *Nature Reviews Drug Discovery* **2010**, 9, 615-627. (# of citations = 2,653)
114. "High Resolution PFPE-based Molding Techniques for Nanofabrication of High Pattern Density Sub-20 nm Features: A Fundamental Materials Approach"; Williams, S.S.; Retterer, S.; Lopez, R.; Ruiz, R.; Samulski, E. T.; DeSimone*, J. M. *Nano Letters*, **2010**, 10(4), 1421-1428. (# of citations = 97)
115. "Generality of Shear Thickening in Dense Suspensions"; Brown, E.; Forman, N.A.; Orellana, C. S.; Zhang, H.; Maynor, B. W.; Betts, D. E.; DeSimone, J. M.; Jaeger, H. M.; *Nature Materials* **2010**, 9, 220 - 224. (# of citations = 269)

116. "Direct Patterning of CdSe Quantum Dots into Sub-100 nm Structures"; Hampton, M. J.; Templeton, J. L.; DeSimone*, J. M.; *Langmuir* **2010**, *26* (5), 3012-3015. (# of citations = 35)
117. "Continuous Precipitation Polymerization of Vinylidene Fluoride in Supercritical Carbon Dioxide: A Model for Understanding the Molecular Weight Distribution"; Ahmed, T. S.; DeSimone, J. M.; Roberts*, G. W. *Chem. Eng. Sci.* **2010**, *65*, 651. (# of citations = 13)
118. "Photochemically Cross-linked Perfluoropolyether-based Elastomers: Synthesis, Physical Characterization and Biofouling Evaluation"; Hu, Z.; Finlay, J.; Chen, L.; Betts, D.; Hillmyer, M.; Callow, M.; Callow, J.; DeSimone*, J. M. *Macromolecules* **2009**, *42*, 6999-7007. (# of citations = 79)
119. "Top-down Particle Fabrication: Control of Size and Shape for Diagnostic Imaging and Drug Delivery"; Canelas, D. A.; Herlihy, K. P.; DeSimone*, J. M. *Advanced Reviews Wiley* **2009**, *1* (4), 391-404. (# of citations = 158)
120. "Photonic Crystal Geometry for Organic Solar Cells"; Ko, D.-H.; Tumbleston, J. R.; Zhang, L.; Williams, S.; DeSimone, J. M.; Lopez, R.; Samulski*, E. T. *Nano Letters* **2009**, *9*(7), 2742-2746. (# of citations = 245)
121. "Kinetics of the Homopolymerization of Vinylidene Fluoride and Its Copolymerization with Hexafluoropropylene in Supercritical Carbon Dioxide: The Locus of Polymerization"; Ahmed, T.S.; DeSimone, J.M.; Roberts, G.W. *Macromolecules* **2009**, *42*, 148-155. (# of citations = 14)
122. "Fluoropolymer Synthesis in Supercritical Carbon Dioxide"; Du, L.; Kelly, J. Y.; Roberts, G. W.; DeSimone*, J. M. *J. Supercrit. Fluids* **2009**, *47*, 447-457. (# of citations = 87)
123. "Fabrication of Multiphasic and Regio-specifically Functionalized PRINT® Particles of Controlled Size and Shape"; Zhang, H.; Nunes, J. K.; Gratton, S. E. A.; Herlihy, K. P.; Pohlhaus, P. D.; DeSimone, J. M.; *New J. of Phys.* **2009**, *11* (7), 075018. (# of citations = 69)
124. "Deposition of Copper Particles and Films by the Displacement of Two Immiscible Supercritical Phases and Subsequent Reaction"; Kim, J.; Taylor, D.; DeYoung, J.; McClain, J. B.; DeSimone, J. M.; Carbonell, R. G.; *Chem. Mater.*, **2009**, *21* (5), 913-924. (# of citations = 6)
125. "Molding Block Copolymer Micelles: A Framework for Molding of Discrete Objects on Surfaces"; Yu-Su, S. Y.; Thomas, D. R.; Alford, J. E.; LaRue, I.; Pitsikalis, M.; Hadjichristidis, N.; DeSimone, J. M.; Dobrynin, A. V.; Sheiko*, S. S. *Langmuir*, **2008**, *24*, 12671-12679. (# of citations = 8)
126. "Optically Transparent, Amphiphilic Networks Based on Blends of Perfluoropolyethers and Poly(ethylene glycol)"; Hu, Z.; Chen, L.; Betts, D.; Pandya, A.; Hillmyer, M. A.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2008**, *130*, 14244-14252. (# of citations = 83)
127. "The Effect of Particle Design on Cellular Internalization Pathways"; Gratton, S. E. A.; Ropp, P. A.; Pohlhaus, P. D.; Luft, J. C.; Madden, V. J.; Napier, M. E.; DeSimone*, J. M. *Proceedings of the National Academy of Sciences* **2008**, *105*(33), 11613-11618. (# of citations = 2,199)
128. "Electrically Driven Alignment and Crystallization of Unique Anisotropic Polymer Particles"; Herlihy, K. P.; Nunes, J. DeSimone*, J. M.; *Langmuir* **2008**, *24*, 8421-8426. (# of citations = 59)

129. "The Pursuit of a Scalable Nano-fabrication Platform for Use in Material and Life Science Applications"; Gratton, S. E. A.; Williams, S. S.; Napier, M. E.; Pohlhaus, P. D.; Zhou, Z.; Wiles, K. B.; Maynor, B. B.; Shen, C.; Olafsen, T.; Samulski, E. T.; DeSimone*, J. M. *Accounts of Chemical Research* **2008**, *41*, 1685-1695. (# of citations = 142)
130. "Nanostructured Titania-Polymer Photovoltaic Devices Made Using PFPE-based Nano-molding Techniques"; Williams, S. S.; Hampton, M. J.; Gowrishanker, V.; Ding, I-K.; Templeton, J. L.; Samulski, E. T.; DeSimone*, J. M.; McGehee, M.; *Chemistry of Materials*, **2008**, *20*, 5229-5234. (# of citations = 101)
131. "Shape-specific, Monodisperse Nano-molding of Protein Particles"; Kelly, J. Y.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2008**, *130*, 5438-5439. (# of citations = 144)
132. "Microfabricated Particles for Engineered Drug Therapies: Elucidation into the Mechanisms of Cellular Internalization of PRINT Particles"; Gratton, S. E. A.; Napier, M. E.; Ropp, P. A.; Tian, S. M.; DeSimone*, J. M. *Pharm. Res.* **2008**, *25*, 2845-2852. (# of citations = 83)
133. "Continuous Co-polymerization of Vinylidene Fluoride with Hexafluoropropylene in Supercritical Carbon Dioxide: High Hexafluoropropylene-Content Amorphous Copolymers"; Ahmed, T. S.; DeSimone, J. M.; Roberts*, G. W. *Macromolecules* **2008**, *41*, 3086-3097. (# of citations = 26)
134. "Reductively Labile PRINT Particles for the Delivery of Doxorubicin to HeLa Cells"; Petros, R. A.; Ropp, P. A.; DeSimone*, J. M.; *J. Am. Chem. Soc.* **2008**, *130*, 5008-5009. (# of citations = 116)
135. L. Du, J. M. DeSimone, G. W. Roberts, in *Green Chemistry and Engineering with Gas Expanded Liquids and Near-Critical Media* (Eds.: K. W. Hutchenson, A. M. Scurto, B. Subramaniam), ACS Symposium Series; **2009**, Vol 90 (1006); pp 259-273.. (# of citations = not tracked by S.C.I.)
136. "The Patterning of Sub-500 nm, Inorganic Oxide Structures Using Cross-linked Perfluoropolyethers"; Hampton, M. J.; Williams, S. S.; Zhou, Z.; Nunes, J.; Ko, D. H.; Templeton, J. L.; Samulski, E. T.; DeSimone*, J. M. *Advanced Materials* **2008**, *20*, 2667-2668. (# of citations = 107)
137. "Continuous Co-polymerization of Vinylidene Fluoride with Hexafluoropropylene in Supercritical Carbon Dioxide: Low Hexafluoropropylene-Content Semicrystalline Copolymers"; Ahmed, T.; DeSimone, J. M.; Roberts*, G. *Macromolecules* **2007**, *40*, 9322-9331. (# of citations = 33)
138. "Nanoparticle Drug Delivery Platform"; Napier, M. E.; DeSimone*, J. M. *Polymer Reviews* **2007**, *47*, 321-327. (# of citations = 77)
139. "Etching SiO₂ with HF/pyridine Supercritical Carbon Dioxide Solutions and Resultant Interfacial Electronic Properties"; Li, Y. X.; Yang, D.; Jones III, C. A.; DeSimone, J. M.; Irene, E. A. *J. Vac. Sci. Technol.* **2007**, *25*(4), 1139-1142. (# of citations = 8)
140. "Alternative Fluoropolymers to Avoid the Challenges Associated With Perfluorooctanoic Acid"; Guo, J.; Resnick, P.; DeSimone*, J. M.; *Ind. Chem. Eng. Res.* **2008**, *47*, 502-508. (# of citations = 67)
141. "Weak Surface Anchoring Energy of 4-Cyano-4'-pentyl-1,1'-biphenyl on Perfluoropolyether Langmuir-Blodgett Films"; Russell-Tanner, J. M.; Takayama, S.; Sugimura, A.; DeSimone, J. M.; Samulski*, E. T. *J. Chem. Phys.* **2007**, *126* (24): Art. No. 244706. (# of citations = 6)

142. "Dynamics of CO₂-Plasticized Electron Transport in Au Nanoparticle Films: Opposing Effects of Tunneling Distance and Local Site Mobility"; Choi, J. P.; Coble, M. M.; Branham, M. R.; DeSimone, J. M.; Murray, R. W. *J. Phys. Chem. C* **2007**, *111*, 3778-3785. (# of citations = 28)
143. "Nanofabricated Particles for Engineered Drug Therapies: A Preliminary Biodistribution Study of PRINT™ Nanoparticles"; Gratton, S. E. A.; Pohlhaus, P. D.; Lee, J.; Guo, J.; Cho, M. J.; DeSimone*, J. M. *J. Controlled Release* **2007**, *121*, 10-18. (# of citations = 247)
144. "Supramolecular Nano-mimetics: Replication of Micelles, Viruses and Other Naturally-Occurring Nanoscale Objects"; Maynor, B. W.; LaRue, I.; Hu, Z.; Rolland, J. P.; Pandya, A.; Fu, Q.; Liu, J.; Spontak, R. J.; Sheiko, S. S.; Samulski, R. J.; Samulski, E. T.; DeSimone*, J. M. *Small* **2007** *3*(5), 845-849. (# of citations = 59)
145. "Ultrathin Film Deposition by Liquid CO₂ Free Meniscus Coating-Uniformity and Morphology"; Kim, J.; Novick, B. J.; DeSimone, J. M.; Carbonell, R. G. *Langmuir* **2006**, *22*, 642-657. (# of citations = 32)
146. "Use of Substituted Bis(acetylaceton)ethylenediimine and Dialkyldithiocarbamate Ligands for Copper Chelation in Supercritical Carbon Dioxide"; Dunbar, A.; Omiatek, D. M.; Thai, S. D.; Kendrex, C. E.; Grotzinger, L. L.; Boyko, W. J.; Weinstein, R. D.; Skaf, D. W.; Bessel*, C. A.; Denison, G.; DeSimone, J. M. *Ind. Eng. Chem. Res.* **2006**, *45*, 8779-8787. (# of citations = 10)
147. "Amorphous Linear Aliphatic Polyesters for the Facile Preparation of Tunable Rapidly Degrading Elastomeric Devices and Delivery Vectors"; Olson, D. A.; Gratton, S. E. A.; DeSimone, J. M.; Sheares*, V. V. *J. Am. Chem. Soc.* **2006**, *128*, 13625-13633. (# of citations = 62)
148. "Superhydrophobic Behavior of a Perfluoropolyether Lotus-Leaf-Like Topography"; Zhang, L.; Zhou, Z.; Cheng, B.; DeSimone, J. M.; Samulski*, E. T. *Langmuir* **2006**, *22*, 8576-8580. (# of citations = 214)
149. "Molded, High Surface Area Polymer Electrolyte Membranes from Cured Liquid Precursors"; Zhou, Z.; Dominey, R. N.; Rolland, J. P.; Maynor, B. W.; Pandya, A. A.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2006**, *128*, 12963-12972. (# of citations = 74)
150. "Imparting Size, Shape, and Composition Control of Materials for Nanomedicine"; Eulis, L.; DuPont, J.; DeSimone*, J. M. *Chem. Soc. Rev.* **2006**, *35*, 1095-1104. (# of citations = 361)
151. "Particle Formation in Precipitation Polymerization: Continuous Precipitation Polymerization of Acrylic Acid in Supercritical Carbon Dioxide"; Liu, T.; Garner, P.; DeSimone, J. M.; Roberts*, G. W.; Bothun, G. D. *Macromolecules* **2006**, *39*(19), 6489-6494. (# of citations = 33)
152. "Cross-linking Polymerization of Acrylic Acid in Supercritical Carbon Dioxide"; Liu, T.; DeSimone, J. M.; Roberts*, G. W.; *Polymer* **2006**, *47*, 4276-4281. (# of citations = 39)
153. "Kinetics of the Precipitation Polymerization of Acrylic Acid in Supercritical Carbon Dioxide: The locus of Polymerization"; Liu, T.; DeSimone, J. M.; Roberts*, G. W. *Chem. Engin. Sci.* **2006**, *61*, 3129-3139. (# of citations = 41)
154. "Contact Angle Analysis, Surface Dynamics, and Biofouling Characteristics of Cross-linkable, Random Perfluoropolyether-based Graft Ter-polymers"; Yarbrough, J. C.; Rolland, J. P.; DeSimone*, J. M.; Callow, M. E.; Finlay, J. A.; Callow, J. A. *Macromolecules* **2006**, *39*, 2521-2528. (# of citations = 135)

155. "Alicyclic Photoresists for CO₂-based Next-Generation Microlithography: A Tribute to James E. McGrath"; Boggiano, M. K.; Vellenga, D.; Carbonell, R. G.; Sheares-Ashby, V.; DeSimone*, J. M.; *Polymer* **2006**, 47, 4012-4017. (# of citations = 10)
156. "Solution Properties of a Fluorinated Alkyl Methacrylate Polymer Dissolved in Supercritical Carbon Dioxide"; Guo, Ji.; André, P.; Adam, M.; Panyukov, S.; Rubinstein*, M.; DeSimone*, J. M.. *Macromolecules* **2006**, 39, 3427-3434. (# of citations = 14)
157. "Polymeric Nanoparticles from Supercritical CO₂ via Microemulsion Polymerization"; Ye, Wei-jun; Keiper, J. S.; DeSimone, J. M.; *Chinese Journal of Polymer Science* **2006**, 24, 95-101. (# of citations = 12)
158. "Copolymerization of Vinylidene Fluoride with Hexafluoropropylene in Supercritical Carbon Dioxide"; Ahmed, T.; Roberts*, G.; DeSimone, J. M. *Macromolecules* **2006**, 39, 15-18. (# of citations = 36)
159. "Flexible Bi-radicals in Liquid and Supercritical Carbon Dioxide: The Exchange Interaction, the Chain Dynamics, and a Comparison with Conventional Solvents"; Forbes*, M.D.E.F.; Dukes, K. E.; Avdievich, N. I.; Harbron, E. J.; DeSimone, J. M. *J. Phys. Chem.* **2006**, 110, 1767-1774. (# of citations = 9)
160. "Studies on CO₂-based slurries and fluorinated silica and alumina particles for chemical mechanical polishing of copper film"; Visintin, P.M.; Eichenlaub, S.K.; Portnow, L.E.; Carbonell, R.G.; Beaudoin, S.P.; Schauer, C.K.; DeSimone, J.M. *Journal of the Electrochemical Society*. 2006, 153, G1064-G1071. (# of citations = 3)
161. "Production of Fluoropolymers in Supercritical Carbon Dioxide"; Wood, Colin D.; Yarbrough, J. C.; Roberts, G.; DeSimone, J. M. in *Supercritical Carbon Dioxide in Polymer Reaction Engineering*; Editors: Kemmere, M. F. and Meyer, T.; (Wiley: Weinheim, Germany); pp 189-204. (# of citations = 4)
162. "Interfacial Properties of Fluorocarbon and Hydrocarbon Phosphate Surfactants at the Water-CO₂ Interface"; Dickson, J. L.; Smith, P. G., Jr.; Dhanuka, V. V.; Srinivasan, V.; Stone, M. T.; Rossky, P. J.; Behles, J. A.; Keiper, J. S.; Xu, B.; Johnson, C.; DeSimone, J. M.; Johnston, K. P. *Ind. Eng. Chem. Res.* **2005**, 44, 1370-1380. (# of citations = 71)
163. "Oxidative Dissolution of Copper and Zinc Metal in Carbon Dioxide with *tert*-Butyl Peracetate and a ^β-Diketone Chelating Agent"; Visintin, P. M.; Bessel, C. A.; White, P. S.; Schauer, C. K.; DeSimone, J. M. *Inorg. Chem.* **2005**, 44, 316-324. (# of citations = 12)
164. "Direct Fabrication and Harvesting of Monodisperse, Shape Specific Nano-Biomaterials"; Rolland, J. P.; Maynor, B. W.; Euliss, L. E.; Exner, A. E.; Denison, G. M.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2005**, 127, 10096-10100. (# of citations = 792)
165. "Continuous Precipitation Polymerization of Acrylic Acid in Supercritical Carbon Dioxide: The Polymerization Rate and the Polymer Molecular Weight"; Liu, T.; DeSimone, J. M.; Roberts, G. W. *J. Polym. Sci. Part A: Polym. Chem.* **2005**, 43, 2546 – 2555. (# of citations = 24)
166. "Chemical Functionalization of Silica and Alumina Particles for Dispersion in Carbon Dioxide"; Visintin, P. M.; Carbonell, R. G.; Schauer, C. K.; DeSimone*, J. M. *Langmuir* **2005**, 21, 4816- 4823. (# of citations = 43)
167. "
168. "NMR and SANS Studies of Aggregation and Microemulsion Formation by Phosphorus Fluorosurfactants in Liquid and Supercritical Carbon Dioxide"; Xu, B.; Lynn, G. W.; Guo, J.; Melinchenko, Y. B.; Wignall, G. D.; McClain, J. B.; DeSimone, J. M.; Johnson, Jr.*, C. S. *J. Phys. Chem.* **2005**, 109, 10261-10269. (# of citations = 29)

169. "Controlled Foaming of Polymer Films Through Restricted Surface Diffusion and the Addition of Nanosilica Particles or CO₂-Philic Surfactants"; Siripurapu, S.; DeSimone, J. M.; Khan, S. A.; Spontak*, R. J. *Macromolecules* **2005**, *38*, 2271-2280. (# of citations = 111)
170. "Fabrication of Ultramicroelectrodes Using A "Teflon-like" Coating Material"; Liu, B.; Rolland, J. P.; DeSimone, J. M.; Bard*, A. J. *Anal. Chem.* **2005**, *77*, 3013-3017. (# of citations = 36)
171. "Heterogeneous Polymerization of Fluoroolefins in Supercritical Carbon Dioxide"; by Kennedy, K. A.; Roberts, G. W.; DeSimone*, J. M. in *Advances in Polymer Science*; Okubo, M. Editor; Springer, **2005**, *175*, 329-346. (# of citations = 38)
172. "Emulsion Polymerization of N-Ethylacrylamide in Supercritical Carbon Dioxide"; Ye, W.; DeSimone*, J. M. *Macromolecules* **2005**, *38*, 2180-2190. (# of citations = 43)
173. "Solid-State Polymerization of Poly(bisphenol A carbonate) Facilitated by Supercritical Carbon Dioxide"; Kiserow, D. J.; Shi, C.; Roberts*, G. W.; Gross, S. M.; DeSimone, J.M. in *Advances in Polycarbonates*; Editors: Brunelle, D. J.; Korn, M. R.; ACS Symposium Series 898: 86-94, **2005**. (# of citations = 1)
174. "Electrochemical behavior of bis(beta-diketonate)copper complexes"; Denison, G. M.; Evans, A. O.; Bessel, C. A.; Skaf, D. W.; Murray, R. W.; DeSimone, J. M. *Journal of the Electrochemical Society* **2005**, *152* (11), B435-B440. (# of citations = 6)
175. "Low-temperature, surface-mediated foaming of polymer films"; Siripurapu, S.; DeSimone, J. M.; Khan, S. A.; Spontak, R. J. *Adv. Mat.* **2004**, *16* (12), 989. (# of citations = 90)
176. "Spin coating of photoresists using liquid carbon dioxide"; Hoggan, E. N.; Flowers, D.; Wang, K.; DeSimone, J. M.; Carbonell, R. G. *Ind. Eng. Chem. Res.* **2004**, *43* (9), 2113-2122. (# of citations = 33)
177. "Deposition of thin polymeric films from liquid carbon dioxide using a high-pressure free-meniscus coating process"; Novick, B. J.; DeSimone, J. M.; Carbonell, R. G. *Ind. Eng. Chem. Res.* **2004**, *43* (2), 515-524. (# of citations = 30)
178. "New Fluoropolymer Materials"; Wood, C. D.; Michel, U.; Rolland, J. P.; DeSimone*, J. M. *J. Fluor. Chem.* **2004**, *125*, 1671-1676. (# of citations = 22)
179. "Light Scattering Study of Poly (dimethylsiloxane) in Liquid and Supercritical CO₂"; André, P.; Folk, S. L.; Adam,* M.; Rubinstein,* M.; DeSimone,* J. M. *J. Phys. Chem.* **2004** *108*, 9901-9907. (# of citations = 17)
180. "Applications of "Dry" Processing in the Microelectronics Industry Using Carbon Dioxide"; Jones, C. A.; Geissler, A.; DeYoung, J. P.; McClain, J. B.; Carbonell, R.; *DeSimone, J. M. *Critical Reviews in Solid State and Materials Sciences* **2004**, *29*, 97-109. (# of citations = 69)
181. "Continuous precipitation polymerization of vinylidene fluoride in supercritical carbon dioxide: modeling the molecular weight distribution"; Ahmed, T.S.; DeSimone, J. M.; Roberts, G. W. *Chem. Eng. Sci.* **2004**, *59* (22-23), 5139-5144. (# of citations = 29)
182. "High Resolution Soft Lithography: Enabling Materials for Nano-Technologies"; Rolland, J. P.; Hagberg, E. C.; Carter,* K. R.; DeSimone*, J. M. *Angew. Chem. Int. Ed.* **2004**, *43*, 5796-5799. (# of citations = 325)
183. "Self-Assembly of Phosphate Fluorosurfactants in Carbon Dioxide"; Keiper, J. S.; Behles, J. A.; Bucholz, T. L.; Simhan, R.; DeSimone*, J. M.; Lynn, G. W.; Wignall*, G. D.; Melnichenko, Y. B.; Frielinghaus, H. *Langmuir* **2004**, *20*, 1065-1072. (# of

citations = 40)

184. "Solvent Resistant photocurable "Liquid Teflon" for Microfluidic Device Fabrication"; Rolland, J. P.; Van Dam, R. M.; Schorzman, D. A.; Quake*, S. R.; DeSimone*, J. M.; *J. Am. Chem. Soc.* **2004**, 126(8), 2322-2323. (# of citations = 502)
185. "Micro- and Nanoporous Materials Developed Using Supercritical Carbon Dioxide"; Paisner, S. N.; DeSimone*, J.M. in *Polymers for Microelectronics and Nanoelectronics*; Editors: Lin, Q.; Pearson, R. A.; Hedrick, J. C.; ACS Symposium Series 874: 223-235, **2004**. (# of citations = 7)
186. "Macromolecular Surfactants for Supercritical Carbon Dioxide Applications: Synthesis and Characterization of Fluorinated Block Copolymers Prepared by Nitroxide-Mediated Radical Polymerization"; Lacroix-Desmazes* P; André P; DeSimone J. M.; Ruzette A.; Boutevin B. *J. Polym. Sci. Part A: Polymer Chemistry* **2004**, 42(14), 3537-3552. (# of citations = 110)
187. "Dry Lithography Using Liquid and Supercritical Carbon Dioxide-based Chemistries and Processes"; Hoggan, E. N.; Flowers, D.; Wang, Ke.; DeSimone*, J. M.; Carbonell*, R. G. *IEEE Transactions* **2004**, 17(4), 510-516. (# of citations = 25)
188. "Green synthesis of polymers using supercritical carbon dioxide"; Wood, C. D.; Cooper, A. I.; DeSimone, J. M. *Current Opinion in Solid State and Materials Science* **2004**, 8(5), 325-331. (# of citations = 77)
189. "Green Chemistry Using Liquid and Supercritical Carbon Dioxide"; Joseph M. DeSimone and William Tumas, Editors; Oxford University Press: New York, 2003 (259 pages). (# of citations = not tracked by S.C.I.)
190. "Improvement of Silicone Endothelialization by Treatment with Allylamine and/or Acrylic Acid Low-pressure Plasma"; Monge, S.; Mas, A.; Hamzaoui, A.; Kassis, C. M.; DeSimone, J. M.; Schue, F. *J. Appl. Polym. Sci.* **2003**, 87 (11), 1794-1802. (# of citations = 27)
191. "Copolymerization of Tetrafluoroethylene and 2,2-Bis(trifluoromethyl)-4,5-difluoro-1,3-dioxole in Supercritical Carbon Dioxide" Michel, U.; Resnick, P.; Kipp, B.; DeSimone*, J. M. *Macromolecules* **2003**, 36, 7107-7113. (# of citations = 37)
192. "HF Etchant Solutions in Supercritical Carbon Dioxide for 'Dry' Etch Processing of Microelectronic Devices"; Jones, C. A.; Yang, D.; Irene, E. B.; Gross, S. M.; Wagner, M.; DeYoung*, J.; DeSimone*, J. M. *Chemistry of Materials* **2003**, 15, 2867-2869. (# of citations = 23)
193. "Etchant Solutions for the Removal of Cu(0) in a Supercritical CO₂-based "Dry" Chemical Mechanical Planarization Process for Device Fabrication"; Bessel, C. A.; Denison, G. M.; DeSimone*, J. M.; DeYoung, J.; Gross, S.; Schauer, C. K.; Visintin, P. M. *J. Am. Chem. Soc.* **2003**, 125, 4980-4981. (# of citations = 60)
194. "NMR Studies of Water Transport and Proton Exchange in Water-in-Carbon Dioxide Microemulsions"; Nagashima, K.; Lee, Jr., C. T.; Xu, B.; Johnston, K. P.; DeSimone, J. M.; Johnson, Jr.*, C. S. *J. Phys. Chem.* **2003**, 107, 1962-1968. (# of citations = 30)
195. "Voltammetry and Electron-Transfer Dynamics in a Molecular Melt of a 1.2 nm Metal Quantum Dot"; Lee, D.; Donkers, R. L.; DeSimone, J. M.; Murray*, R. W. *J. Am. Chem. Soc.* **2003**, 125, 1182-1183. (# of citations = 91)
196. "Ion Atmosphere Relaxation Control of Electron Transfer Dynamics in a Plasticized Carbon Dioxide Redox Polyether Melt"; Lee, D.; Harper, A. S.; DeSimone*, J. M.; Murray*, R. W. *J. Am. Chem. Soc.* **2003**, 125, 1096-1103. (# of citations = 21)

197. "Diffusion of Water in Liquid and Supercritical Carbon Dioxide: An NMR Study"; Xu, B.; Nagashima, K.; DeSimone, J. M.; Johnson, Jr., C. S. *J. Phys. Chem.* **2003**, *107*, 1-3. (# of citations = 47)
198. "A Combined Small-Angle Neutron and X-ray Scattering Study of Block Copolymer Micellization in Supercritical Carbon Dioxide"; Lo Celso, F.; Triolo, A.; Triolo, F.; Thiyagarajan, P.; Amenitsch, H.; Steinhart, M.; Kriechbaum, M.; DeSimone, J. M.; Triolo*, R.; *J. Appl. Crystall.* **2003**, *36*, 660-663. (# of citations = 9)
199. "Industrial applications of the aggregation of block copolymers in supercritical CO₂: a SANS study"; Lo Celso, F.; Triolo, A.; Triolo, F.; McClain, J.; DeSimone, J. M.; Heenan, R. K.; Amenitsch, H.; Triolo, R. *Appl. Phys. A-Mat. Sci. Proc.* **2002**, *74*, S1427-S1429. (# of citations = 9)
200. "Polymeric Nanogels Produced via Inverse Microemulsion Polymerization as Potential Gene and Antisense Delivery Agents"; McAllister, K.; Sazani, P.; Adam, M.; Cho, M.; Rubinstein, M.; Samulski, R. J.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2002**, *124*, 15198-15207. (# of citations = 262)
201. "Electron and Mass Transport in Hybrid Redox Polyether Melts Contacted with Carbon Dioxide"; Lee, D.; Hutchison, J. C.; Leone, A. M.; DeSimone*, J. M.; Murray*, R. W. *J. Am. Chem. Soc.* **2002**, *124*, 9310-9317. (# of citations = 31)
202. "Practical Approaches to Green Solvents"; DeSimone*, J. M. *Science* **2002**, *297*, 799-803. (# of citations = 949)
203. "Novel Electronic Coatings Using Liquid CO₂"; Hoggan, E. N.; Novick, B. J.; DeSimone, J. M.; Carbonell, R. G. *Semicond. Fabtech* **2002**, *16*, 169-173. (# of citations = not tracked by S.C.I.)
204. "Continuous Precipitation Polymerization of Vinylidene Fluoride in Supercritical CO₂: Formation of Polymers with Bimodal Molecular Weight Distributions"; Saraf, M.; Gerard, S.; Wojcinski, L. M.; Charpentier, P. A.; DeSimone*, J. M.; Roberts*, G. W. *Macromolecules* **2002**, *35*, 7976-7985. (# of citations = 69)
205. "Structure of Phosphate Fluorosurfactant-based Reverse Micelles in Supercritical Carbon Dioxide"; Senapati, S.; Keiper, J. S.; DeSimone, J. M.; Wignall, G. D.; Melinchenko, Y. B.; Frielinghaus, H.; Berkowitz, M. L. *Langmuir* **2002**, *18*, 7371 - 7376. (# of citations = 96)
206. "Kinetics of Block Copolymer Aggregation in Supercritical CO₂"; Triolo, A.; Lo Celso, F.; Triolo, F.; Amenitsch, H.; Steinhart, M.; Thiyagarajan, P.; Wells-Kennedy, S.; DeSimone, J. M.; Triolo, R. *J. Noncrystal Solids* **2002**, *307*, 725-730. (# of citations = 7)
207. "Designing Photoresist Systems for Microlithography in Carbon Dioxide"; Flowers, D.; Hoggan, E.; DeSimone*, J. M.; Carbonell, R. *Mat. Res. Soc. Symp. Proc.* **2002**, *705*, 81-87. (# of citations = 10)
208. "Continuous Precipitation Polymerization of Vinylidene Fluoride in Supercritical CO₂: Molecular Weight Distribution"; Saraf, M.; Wojcinski, L. M.; Kennedy, K.; Gerard, S.; Charpentier, P. A.; DeSimone, J. M.; Roberts*, G. W. *Macromol. Symp.* **2002**, *182*, 119-129. (# of citations = 19)
209. "Continuous Polymerizations in Supercritical Carbon Dioxide"; Charpentier, P.A.; DeSimone*, J.M.; Roberts*, G.W. in *Clean Solvents: ACS Symposium Series 819*: 113-135, **2002**. (# of citations = 14)
210. "Formation of Self-assembled Monolayers of Semifluorinated and Hydrocarbon Chlorosilane Precursors on Silica Surfaces from Liquid Carbon Dioxide"; Efimenko, K.; Novick, B.; Carbonell, R. G.; DeSimone, J. M.; Genzer*, J. *Langmuir* **2002**, *18*, 6170-

6179. (# of citations = 36)

211. "Generation of Microcellular Foams of PVDF and Its Blends Using Supercritical Carbon Dioxide in a Continuous Process"; Siripurapu, S.; Gay, Y. J.; Royer, J. R.; DeSimone, J. M.; Spontak, R. J.; Khan*, S. A. *Polymer* **2002**, 43, 5511-5520. (# of citations = 136)

212. "Polymer Self-Assembly in Carbon Dioxide"; Taylor, D. K.; Keiper, J. S.; DeSimone*, J. M. *Ind. Eng. Chem. Res.* **2002**, 41, 4451-4459. (# of citations = 21)

213. "Microphase-Separated Block Copolymers Comprised of Low Surface Energy Fluorinated Blocks and Hydrophilic Blocks: Synthesis and Characterization"; Arnold, M.; Leroux, D.; Betts, D.; Nagai, K.; Spontak, R.; Linton, R.; DiGiano, F.; DeSimone*, J. M.; Freeman*, B. *Macromolecules* **2002**, 35, 3697-3707. (# of citations = 52)

214. "Determination of the Equilibrium Constant for the Reaction between Bisphenol A and Diphenyl Carbonate"; Gross, S. M.; Bunyard, W. C.; Erford, K.; Roberts, G.; Kiserow, D. J.; DeSimone*, J. M. *J. Polym. Sci. Part A: Polym. Chem.* **2002**, 40, 171-178. (# of citations = 26)

215. "Effect of Polymer Coatings from CO₂ on Water-Vapor Transport in Porous Media"; Henon, F. E.; Carbonell*, R. G.; DeSimone, J. M.; *AIChE Journal* **2002**, 48(5), 941-952. (# of citations = 17)

216. "A Commentary on 'Carbon Dioxide-Poly(Vinylidene Fluoride) Interactions at High Pressure'; Kennedy, K. A. DeSimone, J. M.; Roberts*, G. W. *J. Polym. Sci. Part B: Polym. Phys.* **2002**, 40(6), 602-604. (# of citations = 2)

217. "New Phosphate Fluorosurfactants for Carbon Dioxide"; Keiper, J. S.; Simhan, R. DeSimone*, J. M.; Wignall, G. D.; Melinchenko, Y. B. *J. Am. Chem. Soc.* **2002**, 124, 1834-1835. (# of citations = 101)

218. "Polymer Melt Rheology with High-pressure CO₂ Using a Novel Magnetically Levitated Sphere Rheometer" Royer, J.R.; Gay, Y. J.; Adam, M.; DeSimone, J. M.; Khan, S.A. *Polymer* **2002**, 43(8), 2375-2383. (# of citations = 58)

219. "Light scattering study of poly(tert-butyl methacrylate)-block-poly(1,1-dihydroperfluorooctyl methacrylate) in liquid and supercritical carbon dioxide-Towards the reversible control of self-assembly"; Yoshida, E.; Wells, S. L.; DeSimone, J. M. *Konbunshi Ronbunshi* **2001**, 58 (10), 507-513. (# of citations = 6)

220. "Polymers with Multiple Ligand Sites for Metal Extractions in Dense Phase Carbon Dioxide"; Powell, K. R.; McCleskey, T. M.; Tumas*, W.; DeSimone*, J. M. *Ind. Eng. Chem. Res.* **2001**, 40(5), 1301-1305. (# of citations = 26)

221. "Separation of Positional Isomers of Oxidation Catalysts Precursors" Hartshorn, C. M.; Maxwell, K.A.; White, P.S.; DeSimone, J. M.; Meyer*, T. J. *Inorg. Chem.* **2001**, 40, 601-606. (# of citations = 40)

222. "Four- and Five-Coordinate CO Insertion Mechanisms in d(8)-Nickel(III) Complexes"; Shultz, C. S.; DeSimone, J. M.; Brookhart*, M. *J. Am. Chem. Soc.* **2001**, 123(37), 9172-9173. (# of citations = 47)

223. "Formation of Perfluoropolyether Coatings by the Rapid Expansion of Supercritical Solutions (RESS) Process. Part 1: Experimental Results"; Chernyak, Y.; Henon, F.; Harris, R. B.; Gould, R. D.; Franklin, R. K.; Edwards, J. R.; DeSimone, J. M.; Carbonell, R. G. *Ind. Eng. Chem. Res.* **2001**, 40, 6118-6126. (# of citations = 90)

224. "Bond Angle Effects on the Migratory Insertion of Ethylene and Carbon Monoxide into Palladium(II)-Methyl Bonds in Complexes Bearing Bidentate Phosphine Ligands"; Ledford, J.; Shultz, C. S.; Gates, D. P.; White, P. S.; DeSimone, J. M.;

- Brookhart*, M. ; *Organometallics*; **2001**; 20(25); 5266-5276. (# of citations = 101)
225. "Developments in Carbon Dioxide Research"; Behles, J. A.; DeSimone*, J. M. *Pure Appl. Chem.* **2001**, 73 (8), 1281-1285. (# of citations = 54)
226. "Ultrafast Excited-state Energy Migration Dynamics in an Efficient Light Harvesting Antenna Polymer based on Ru(II) and Os(II) Polypyridyl Complexes"; Fleming, C. N.; Maxwell, K. A.; DeSimone, J. M.; Meyer, T. J.; Papanikolas*, J. M. *J. Am. Chem. Soc.* **2001**, 123, 10336-10347. (# of citations = 126)
227. "Reaction Kinetics of the Solid State Polymerization of Poly(bisphenol A carbonate) Facilitated by Supercritical CO₂"; Shi, C.; DeSimone, J. M.; Roberts*, G.; Kiserow*, D. J. *Macromolecules* **2001**, 34, 7744-7750. (# of citations = 48)
228. "Well-defined Glycopolymers Amphiphiles for Liquid and Supercritical Carbon Dioxide Applications"; Ye, W.; Wells, S.; DeSimone*, J. M. *J. Polym. Sci. Part A: Polym. Chem.* **2001**, 39, 3841-3849. (# of citations = 39)
229. "Electrospinning of Polymer Nanofibers with Specific Surface Chemistry"; Deitzel, J. M.; Kosik, W.; McKnight, S. H.; Beck Tan*, N. C.; DeSimone, J. M.; Crette, S. *Polymer* **2002**, 43(3), 1025-1029. (# of citations = 320)
230. "Dispersion Polymerization of Glycidyl Methacrylate in Supercritical Carbon Dioxide"; Shiho, H.; DeSimone*, J. M. *Macromolecules* **2001**, 34(5), 1198-1203. (# of citations = 103)
231. "Surfactants and Self-assembly in Carbon Dioxide"; DeSimone*, J. M.; Keiper, J. S. *Current Opinion in Solid State and Materials Science* **2001**, 5, 333-341. (# of citations = 51)
232. "Diffusive Transport of Micelles and Monomeric Solutes in Supercritical CO₂"; Lee, D.; Hutchison, J. C.; DeSimone*, J. M.; Murray*, R. W. *J. Am. Chem. Soc.* **2001**, 123, 8406-8407. (# of citations = 29)
233. "Viscosity Effects on the Thermal Decomposition of Bis(perfluoro-2-N-propoxypropionyl) Peroxide in Dense Carbon Dioxide and Fluorinated Solvents"; Bunyard, W. C.; Kadla, J. F.; DeYoung, J.; DeSimone*, J. M. *J. Am. Chem. Soc.* **2001**, 123, 7199-7206. (# of citations = 39)
234. "Study of the Association of a Diblock Copolymer and Absorption of an Insoluble Homopolymer in CO₂"; Wells, S. L.; Taylor, D.; Adam, M.; DeSimone*, J. M.; Farago, B. *Macromolecules* **2001**, 34, 6161-6163. (# of citations = 8)
235. "Critical Phase Polymerizations"; Jones, III, C. A.; DeSimone*, J. M. in *Encyclopedia of Polymer Science and Engineering*; 3rd Edition, Ed. Mark, H.; Wiley-Interscience: Hoboken; 111-127; **2001**. (# of citations = not tracked by S.C.I.)
236. "Surfactants for Supercritical and Near-Critical Fluids"; Carson, T.; Wells, S. L.; DeSimone*, J. M. in *Reactions and Synthesis in Surfactant Systems*; Ed. John Texter; Marcel Dekker: New York; pp. 129-143, 2001. (# of citations = 7)
237. "Synthesis of High Molecular Weight Polycarbonate by Solid State Polymerization"; Gross, S. M.; Roberts*, G.; Kiserow*, D. J.; DeSimone*, J. M. *Macromolecules* **2001**, 34, 3916-3920. (# of citations = 76)
238. "Gas Permeation Properties of Poly(1,1'-dihydroperfluorooctyl acrylate), Poly(1,1'-dihydroperfluorooctyl methacrylate) and Poly(styrene)-*b*-Poly(1,1'-dihydroperfluorooctyl acrylate) Block Copolymers"; Arnold, M.; DeSimone, J. M.; Freeman*, B. *Macromolecules* **2001**, 34, 5611-5619. (# of citations = 41)

239. "Solubility and Diffusivity of Sodium Chloride in Phase-separated Block Copolymers of Poly(2-dimethylaminoethyl methacrylate), Poly(1,1'-dihydroperfluorooctyl methacrylate) and Poly(1,1,2,2-tetrahydroperfluorooctyl acrylate)"; Nagai, K.; Tanaka, S.; Hirata, Y.; Nakagawa, T.; Arnold, M. E.; Freeman, B. D.; Leroux, D.; Betts, D. E.; DeSimone, J. M.; and DiGiano*, F. *Polymer* **2001**, 42(25), 9941-9948. (# of citations = 22)
240. "Nucleophilic Displacements in Supercritical CO₂ Using Silica-Supported Phase Transfer Agents"; DeSimone, J. M.; Selva*, M.; Tundo*, P. *J. Org. Chem.* **2001**, 66(11), 4047-4049. (# of citations = 18)
241. "Latest Applications of Compressed Carbon Dioxide"; Crette, S. A.; DeSimone, J. M. *Nachrichten Aus der Chemie* **2001**, 49(4), 462-466. (# of citations = 3)
242. "Reaction Kinetics of the Solid State Polymerization of Poly(bisphenol A carbonate)"; Shi, C.; Gross, S. M.; DeSimone, J. M.; Kiserow, D. J.; Roberts, G. *Macromolecules* **2001**, 34, 2060-2064. (# of citations = 49)
243. "Cationic Four- and Five-coordinate nickel(II) Complexes: Insights into the Nickel(II)-catalyzed Copolymerization of Ethylene and Carbon Monoxide"; Brookhart*, M.; DeSimone, J. M.; Shultz, S. C. *Organometallics* **2001**, 20(1), 16-18. (# of citations = 56)
244. "Carbon Dioxide Technology Platform: An Important Tool for Environmental Problem Solving"; Wells, S. L.; DeSimone*, J. M. *Angew. Chem.* **2001**, 113, 519-527. (# of citations = 224)
245. "High-pressure Rheology and Viscoelastic Scaling Predictions of Polymer Melts Containing Liquid and Supercritical Carbon Dioxide"; Royer, J. R.; DeSimone, J. M.; Khan, S. A. *J. Polym. Sci.: Part B-Polymer Physics* **2001**, 39 (23), 3055-3066. (# of citations = 77)
246. "Broadening of Molecular-weight Distribution in Solid-state Polymerization Resulting from Condensate Diffusion"; Goodner, M. D.; Gross, S. M.; DeSimone, J. M.; Roberts*, G. W.; Kiserow, D. J. *J. Appl. Polym. Sci.* **2001**, 79(5), 928-943. (# of citations = 21)
247. "Kinetic Studies of Migratory Insertion Reactions at the (1,3-bis(diphenylphosphino)propane)Pd(II) Center and Their Relationship to the Alternating Copolymerization of Ethylene and Carbon Monoxide"; Shultz, C. S.; Ledford, J.; DeSimone, J. M.; Brookhart, M. *J. Am. Chem. Soc.* **2000**, 122(27), 6351-6356. (# of citations = 123)
248. "Synthesis of Sugar-Containing Amphiphiles for Liquid and Supercritical Carbon Dioxide"; Ye, W.; DeSimone*, J. M. *Ind. Eng. Chem. Res.* **2000**, 39, 4564-4566. (# of citations = 24)
249. "Crystallization and Solid-state Polymerization of Poly(bisphenol A carbonate) Facilitated by Supercritical CO₂"; Gross, S. M.; Roberts, G. W.; Kiserow, D. J.; DeSimone*, J. M. *Macromolecules* **2000**, 33(1), 40-45. (# of citations = 127)
250. "Frontiers in Green Chemistry Utilizing Carbon Dioxide for Polymer Synthesis"; Young, J. L.; DeSimone*, J. M. *Pure Appl. Chem.* **2000**, 72(7), 1357-1363. (# of citations = 38)
251. "High Pressure Rheology of Polystyrene Melts Plasticized with CO₂: Experimental Measurement and Predictive Scaling Relationships"; Royer, J. R.; Gay, Y. J.; DeSimone, J. M.; Khan, S. A. *J. Polym. Sci. Part B Polym. Phys.* **2000**, 38, 3168-3180. (# of citations = 157)

252. "Critical Micellization Density: A Small Angle Scattering Structural Study of Monomer-Aggregate Transition of Block Copolymers in Supercritical Carbon Dioxide"; Triolo, A.; Triolo, F.; Lo Celso, F.; Betts, D. E.; McClain, J. B.; DeSimone, J. M.; Wignall, G. D.; Triolo*, R.; *Physical Review E* **2000**, 62, 5839-5842. (# of citations = 27)
253. "Critical Micelle Density: A Small Angle Scattering Structural Study of the Unimer to Aggregate Transition of Block Copolymers in Supercritical Carbon Dioxide"; Triolo, A.; Triolo, F.; Triolo*, R.; Betts, D. E.; McClain, J. B.; DeSimone, J. M.; Steytler, D. C.; Wignall, G. D.; Deme, B.; Heenan, R. K.; *J. Appl. Crystal.* **2000**, 33, 641-644. (# of citations = 14)
254. "Decomposition of Polymerization Initiators in Supercritical CO₂: A Novel Approach to reaction Kinetics Using a CSTR"; Charpentier, P. A.; DeSimone, J. M.; Roberts*, G. W. *Chem. Eng. Sci.* **2000**, 55, 5341-5349. (# of citations = 32)
255. "Radical Polymerizations of a Silicone-Containing Acrylic Monomer in Supercritical Carbon Dioxide"; Shiho, H. and DeSimone*, J.M. *Journal of Polymer Science Part A: Polymer Chemistry* **2000**, 38, 3100-3105. (# of citations = 10)
256. "An Equilibrium Model for Diffusion-limited Solid State Polymerization"; Goodner, M. D.; DeSimone, J. M.; Kiserow*, D. J.; Roberts*, G. W. *Ind. Eng. Chem. Res.* **2000**, 39, 2797-2806. (# of citations = 26)
257. "Mimicking the Antenna-Electron Transfer Properties of Photosynthesis"; Sykora, M.; Maxwell, K. A.; DeSimone, J. M.; Meyer*, T. J. *Proceedings of the National Academy of Sciences USA* **2000**, 97, 7687-7691. (# of citations = 88)
258. "One-pot Synthesis and Characterization of a Chromophore-Donor-Acceptor Assembly"; Maxwell, K. A.; Sykora, M.; DeSimone, J. M.; Meyer*, T. J. *Inorg. Chem.* **2000**, 39, 71-75. (# of citations = 59)
259. "Structure of Diblock Copolymers in Supercritical Carbon Dioxide and Critical Micellization Pressure"; Triolo*, R.; Triolo, A.; Triolo, F.; Steytler, D. C.; Lewis, C. A.; Heenan, R. K.; Wignall, G. D.; DeSimone, J. M. *Physical Review* **2000**, 61, 4640-4643. (# of citations = 41)
260. "Quasi-elastic Neutron Scattering from Polymer Aggregates in Supercritical Carbon Dioxide"; Triolo, R.; Arrighi, V.; Triolo*, A.; Migliardo, P.; Magazu, S.; McClain, J. B.; Betts, D.; DeSimone, J. M.; Middendorf, H. D. *Physica B* **2000**, 276/278, 386-387. (# of citations = 4)
261. "Dispersion Polymerization of 1-Vinyl-2-pyrrolidone in Supercritical Carbon Dioxide" Carson, T.; Lizotte, J. and DeSimone*, J.M. *Macromolecules* **2000**, 33, 1917-1920. (# of citations = 73)
262. "Preparation of Silicone-Graft Copolymers by Homogeneous Radical Copolymerization in Supercritical Carbon Dioxide"; Shiho, H. and DeSimone*, J.M. *Journal of Polymer Science Part A: Polymer Chemistry* **2000**, 38, 1139-1145. (# of citations = 23)
263. "Opportunities for Pollution Prevention and Energy Efficiency Enabled by the Carbon Dioxide Technology Platform"; Taylor, D. K.; Carbonell, R. G.; DeSimone*, J. M. *Ann. Rev. Ener. Environ.* **2000**, 25, 115-146. (# of citations = 42)
264. "Continuous Precipitation Polymerizations of Vinylidene Fluoride in Supercritical CO₂: Modelling of the Rate of Polymerization"; Charpentier, P. A.; DeSimone, J. M.; Roberts*, G. W. *Ind. Eng. Chem. Res.* **2000**, 39(12), 4588-4596. (# of citations = 78)
265. "Dispersion Polymerization of Styrene in Supercritical Carbon Dioxide Utilizing Random Copolymers Containing a Fluorinated Acrylate for Preparing Micron-size Polystyrene Particles"; Shiho, H. and DeSimone*, J.M. *Journal of Polymer Science Part A: Polymer Chemistry* **2000**, 38, 1146-1153. (# of citations = 64)

266. "Dispersion Polymerization of Acrylonitrile in Supercritical Carbon Dioxide" Shiho, M and DeSimone*, J.M. *Macromolecules* **2000**, 33, 1565-1569. (# of citations = 99)
267. "Critical Micelle Density for the Self-Assembly of Block Copolymer Surfactants in Supercritical Carbon Dioxide" Triolo, F.; Triolo, A.; Triolo*, R.; Londono, J. D.; Wignall, G. D.; McClain, J. B.; Betts, D. E.; Wells, S.; Samulski, E. T.; DeSimone, J. M. *Langmuir* **2000**, 16, 416-421. (# of citations = 71)
268. "Dispersion Polymerization of 2-Hydroxyethyl Methacrylate in Supercritical Carbon Dioxide"; Shiho, H.; DeSimone*, J. M. *J. Polym. Sci.: Part A- Polym. Chem.* **2000**, 38(20), 3783-3790. (# of citations = 58)
269. "Step-scan FTIR Time-Resolved Spectroscopy Study of Excited State Dipole Orientation in Soluble Metallopolymers" Smith, G. D.; Maxwell, K. A.; DeSimone, J. M.; Meyer, T. J.; Palmer*, R. A. *Inorg. Chem.* **2000**, 39(5), 893-898. (# of citations = 25)
270. "Perfluoropolyether Synthesis in Liquid Carbon Dioxide by Hexafluoropropylene Photooxidation"; Bunyard, W. C.; Romack, T. J.; DeSimone*, J. M. *Macromolecules* **1999**, 32, 8224-8226. (# of citations = 32)
271. "Atom Transfer Radical Polymerization in Supercritical Carbon Dioxide" Xia, J.; Johnson, T.; Gaynor, S.; Matyjaszewski*, K.; DeSimone*, J. M. *Macromolecules* **1999**, 32, 4802-4805. (# of citations = 237)
272. "Supercritical CO₂ as a Solvent for Polymeric Stone Protective Materials"; Henon, F. E.; Camaiti, M.; Burke, A. L. C.; Carbonell*, R. G.; DeSimone, J. M.; Piacenti, F. *J. Supercrit. Fluids* **1999**, 15(2), 173-179. (# of citations = 60)
273. "Solid State Polymerization of Polycarbonates Using Supercritical CO₂"; Gross, S. M.; Flowers, D.; Roberts, G.; Kiserow, D. J.; DeSimone*, J. M. *Macromolecules* **1999**, 32, 3167-3169. (# of citations = 64)
274. "Polymerizations in Supercritical Carbon Dioxide" Kendall, J.L.; Canelas, D.A.; Young, J.L.; DeSimone, J.M. *Chem. Rev.* **1999**, 99, 543-563 (# of citations = 974)
275. "Small Angle Neutron Scattering from Polymers in Supercritical Carbon Dioxide" Londono, J.D.; Wignall, G.D.; McClain, J.B.; Betts, D.E.; Canelas, D.A.; DeSimone, J.M.; Samulski, E.T.; Triolo, R. *Neutron News* **1999**, 10/2, 10-11. (# of citations = not tracked by S.C.I.)
276. "Preparation of Micron-size Polystyrene Particles in Supercritical Carbon Dioxide"; Shiho, H.; DeSimone*, J. M. *J. Polym. Sci. Part A* **1999**, 37, 2429-2437. (# of citations = 75)
277. "Continuous Polymerizations in Supercritical Carbon Dioxide: Chain-Growth Precipitation Polymerizations" Charpentier, P.A.; Kennedy, K.A.; DeSimone, J.M.; Roberts, G.W. *Macromolecules* **1999**, 32, 5973-5975. (# of citations = 82)
278. "Synthesis of Fluoropolymers in Liquid and Supercritical Carbon Dioxide Solvent Systems" DeYoung, J. P.; Romack, T.J.; DeSimone, J.M. In *Fluoropolymers*, Chapter. 13. Plenum Publishing, **1999**, 191-205. (# of citations = not tracked by S.C.I.)
279. "Carbon Dioxide-Induced Swelling of Poly (dimethylsiloxane)"; Royer, J. R.; DeSimone, J. M.; Khan, S. A. *Macromolecules* **1999**, 32, 8965-8973. (# of citations = 133)
280. "Interfacial Activity of Polymeric Surfactants at the Polystyrene-Carbon Dioxide Interface"; Harrison, K. L.; da Rocha, S. R. P.; Yates, M. Z.; Johnston*, K. P.; Canelas, D.; DeSimone, J. M. *Langmuir* **1998**, 14, 6855-6863. (# of citations = 65)

281. "Polymerizations in Dense Carbon Dioxide"; Davidson, T.; DeSimone*, J. M. in "Chemical Synthesis in Supercritical Fluids"; Jessop, P.; Leitner, J. Wiley-VCH: Weinheim, Germany **1998**. (# of citations = not tracked by S.C.I.)
282. "Synthesis and Swelling of Poly(bisphenol A carbonate) Using Supercritical Carbon Dioxide"; Gross, S. M.; Givens, R. D.; Jikei, M.; Royer, J. R.; Khan, S.; DeSimone*, J. M.; O'Dell*, P. G.; Hamer, G. K. *Macromolecules* **1998**, *31*, 9090-9092. (# of citations = 44)
283. "Structure and Morphology of Poly([R,S]-beta-butyrolactone) Synthesized from Aluminosilicate Catalysts"; Jaimes, C.; Arcana, M.; Brethon, A.; Mathieu, A.; Schue*, F.; DeSimone, J. M. *Eur. Polym. J.* **1998**, *34*(2), 175-185. (# of citations = 11)
284. "Poly(vinyl acetate) and Poly(vinyl acetate-co-ethylene) Latexes via Dispersion Polymerizations in Carbon Dioxide"; Canelas, D. A.; Betts, D. E.; DeSimone*, J. M.; Yates, M. Z.; Johnston, K. P. *Macromolecules* **1998**, *31*, 6794-6805. (# of citations = 131)
285. "Light-Scattering Study of Diblock Copolymers in Supercritical Carbon Dioxide: CO₂ Density-Induced Micellization Transition"; Buhler, E.; Dobrynin, A.; DeSimone*, J. M.; Rubinstein*, M. *Macromolecules* **1998**, *31*, 7347-7355. (# of citations = 98)
286. "Phase Behavior of Poly(1,1-dihydroperfluorooctylacrylate) in Supercritical Carbon Dioxide"; Luna-Barcenas, G.; Mawson, S.; Takishima, S.; DeSimone, J. M.; Sanchez, I. C.; Johnston*, K. P. *Fluid Phase Equil.* **1998**, *146*, 325-337. (# of citations = 76)
287. "Stereochemistry of Ring-Opened Metathesis Polymers Prepared in Liquid CO₂ at High Pressure Using Ru(H₂O)₆(Tos)₂ as Catalyst"; Hamilton, J. G.; Rooney, J. J.; DeSimone, J. M.; Mistele, C.; *Macromolecules* **1998**, *31*, 4387-4389. (# of citations = 38)
288. "Pulsed-Laser Polymerization of Methyl Methacrylate in Liquid and Supercritical Carbon Dioxide"; Quadir, M. A.; DeSimone*, J. M.; van Herk*, A. M.; German, A. L. *Macromolecules* **1998**, *31*, 6481-6485. (# of citations = 35)
289. Betts, D. E.; Johnson, T.; LeRoux, D.; DeSimone, J. M. In *Controlled Radical Polymerization*; Matyjaszewski, K., Ed.; ACS Symposium Series 685; American Chemical Society: Washington, DC, **1998**; pp. 418 - 432. (# of citations = not tracked by S.C.I.)
290. "Diffusion of Block Copolymers in Liquid CO₂: Evidence of Self-Assembly from Pulsed Field Gradient NMR"; Cain, J. B.; Zhang, K.; Betts, D. E.; DeSimone*, J. M.; Johnson, Jr.*, C. S. *J. Am. Chem. Soc.* **1998**, *120*, 9390-9391. (# of citations = 25)
291. "Fluorocarbons Dissolved in Supercritical Carbon Dioxide: NMR Evidence for Specific Solute-Solvent Interactions"; Dardin, A.; DeSimone, J. M.; Samulski*, E. T. *J. Phys. Chem.* **1998**, *102*, 1775-1780. (# of citations = 187)
292. "Carbon Dioxide as a Continuous Phase for Polymer Synthesis"; Canelas, D. A.; Burke, A.; DeSimone*, J. M. *Plastics Engineering* **1997**, *53* (12), 37-40. (# of citations = 12)
293. "On the Role of Carbon Dioxide in Transition Metal Catalysis, Extractions, and Deposition"; Mistele, C.; DeSimone*, J. M. *Green Chemistry: Frontiers in Benign Chemical Synthesis and Processing* **1998**, Oxford University Press, p. 286-312. (# of citations = not tracked by S.C.I.)

294. "Detergent-Aided Cleaning of Metal Surfaces in Liquid Carbon Dioxide"; Hoggan, E. N.; Carbonell, R. G.; DeSimone, J. M.; Cramer, G. L.; Stewart, G. M. *CleanTech98 Proceedings* **1998**, 137-146; Witter Publishing, Flemington, NJ. (# of citations = not tracked by S.C.I.)
295. "Time-resolved EPR study of a 1.9-Flexible Biradical Dissolved in Liquid Carbon Dioxide. Observation of a New Spin-Relaxation Phenomenon: Alternating Intensities in Spin-correlated Radical Pair Spectra"; Avdievich, N. I.; Dukes, K. E.; Forbes*, M. D. E.; DeSimone, J. M. *J. Phys. Chem.* **1997**, *101*(4), 617-621. (# of citations = 16)
296. "XPS Analysis of Poly[(3-hydroxybutyric acid)-co-(3-hydroxyvaleric acid)] Film Surfaces Exposed to an Allylamine low-pressure Plasma"; Mas*, A.; Jaaba, H.; Shue, F.; Belu, A. M. Kassis, C.K.; Linton, R. W.; DeSimone, J. M. *Macromol. Chem. Phys.* **1997**, *198*, 3737-3752. (# of citations = 19)
297. "Stabilized Polymer Microparticles by Precipitation with a Compressed Fluid Antisolvent: 1. Poly(fluoro acrylates)"; Mawson, S.; Johnston*, K. P.; Betts, D. E.; McClain, J. B.; DeSimone*, J. M. *Macromolecules* **1997**, *30*(1), 71-77. (# of citations = 89)
298. "Extraction of a Hydrophilic Compound from Water Into Liquid CO₂ Using Dendritic Surfactants "; Cooper, A. I.; Londono, D.; Wignall, G.; McClain, J. B.; Samulski, E. T.; Lin, J. S.; Dobrynin, A.; Rubinstein, M.; Burke, A. L. C. Frechet, J. M. J.; DeSimone*, J. M. *Nature* **1997**, *389*, 368-371. (# of citations = 358)
299. "Polymerizations in Liquid and Supercritical Carbon Dioxide"; Canelas, D. A.; DeSimone*, J. M. *Adv. Polym. Sci.* **1997**, *133*, 103-140. (# of citations = 200)
300. "Emulsion Stabilization and Flocculation in CO₂. 1. Turbidimetry and Tensiometry"; O'Neill, M. L.; Yates, M. Z.; Harrison, K. L.; Johnston*, K. P.; Canelas, D. A.; Betts, D. E.; DeSimone*, J. M.; Wilkinson, S. P. *Macromolecules* **1997**, *30*, 5050-5059. (# of citations = 91)
301. "Emulsion Stabilization and Flocculation in CO₂. 2. Dynamic Light Scattering"; Yates, M. Z.; O'Neill, M. L.; Johnston*, K. P.; Weber, S.; Canelas, D. A.; Betts, D. E.; DeSimone, J. M.; *Macromolecules* **1997**, *30*, 5060-5067. (# of citations = 79)
302. "Propagation Rate Coefficients of Styrene and Methyl Methacrylate in Supercritical Carbon Dioxide"; Van Herk*, A. M.; Canelas, D.; DeSimone*, J. M. *Macromolecules* **1997**, *30*, 4780-4782. (# of citations = 44)
303. "Dispersion Polymerizations of Styrene in Carbon Dioxide Stabilized with Poly(styrene-b-dimethylsiloxane)"; Canelas, D. A.; DeSimone*, J. M. *Macromolecules* **1997**, *30*, 5673-5682. (# of citations = 176)
304. "The Morphology of Block Copolymer Micelles in Supercritical Carbon Dioxide by Small Angle Neutron and X-ray Scattering"; Londono, J. D.; Dharmapurikar, R.; Cochran, H. D.; Wignall, G. D.; McClain, J. B.; Bets, D. E.; Canelas, D. A.; DeSimone, J. M.; Samulski, E. T.; Chillura-Martino, D.; Triolo, R. *J. Appl. Cryst.* **1997**, *30*, 690-695. (# of citations = 50)
305. "Flow System and 9.5 GHz Microwave Resonators for Time-Resolved and Steady-State Electron Paramagnetic Resonance Spectroscopy in Compressed and Supercritical Fluids"; Dukes, K. E.; Harbron, E. J.; Forbes*, M. D. E.; DeSimone, J. M. *Rev. Sci. Instrum.* **1997**, *68*, 2505-2510. (# of citations = 12)
306. "Observation of an Inverse Kinetic Isotope Effect in a Co(III)-Catalyzed Polymerization of Ethylene"; Tanner, M. J.; Brookhart*, M.; DeSimone, J. M. *J. Am. Chem. Soc.* **1997**, *119*, 7617-7618. (# of citations = 52)

307. "An Investigation Into Importance of Polymer Matrix Miscibility Using MALDI-MS"; Kassis, C.; DeSimone*, J. M.; Linton*, R. W.; Lange, G. W.; Friedman, R. M. *Rapid Comm. Mass Spectrom.* **1997**, *11*, 1462-1466. (# of citations = 34)
308. "A Direct Deposition Method for Coupling Matrix-assisted Laser Desorption/Ionization Mass Spectrometry with Gel Permeation Chromatography for Polymer Characterization"; Kassis, C. E.; DeSimone*, J. M.; Linton*, R. W.; Remsen, E. E.; Lange, G. W.; Friedman, R. M. *Rapid Comm. Mass Spectrom.* **1997**, *11*, 1134-1138. (# of citations = 62)
309. "Poly(hydroxybutyrate-co-9% hydroxyvalerate) Film Surface Modification by Ar, O₂, H₂O/O₂, H₂O and H₂O₂ Plasma Treatment"; Mas*, A.; Jaaba, H.; Schue, F.; Belu, A. M.; Kassis, C.; Linton, R. W.; DeSimone, J. M. *J. Macromol. Sci.* **1997**, *A34*, 67-79. (# of citations = 12)
310. "Surface Modification of Poly(hydroxybutyrate-co-9% hydroxyvalerate) by Allyl Alcohol Plasma Polymerization"; Mas, A.; Jaaba, H.; Schue*, F.; Belu, A. M.; Kassis, C. M.; Linton, R. W.; DeSimone, J. M. *Eur. Polym. J.* **1997**, *33*, 331-317. (# of citations = 9)
311. "High-Pressure NMR of Polymers Dissolved in Supercritical Carbon Dioxide"; Dardin, A.; Cain, J. B.; DeSimone*, J. M.; Johnson, Jr., C. S.; Samulski*, E. T. *Macromolecules* **1997**, *30*, 3593-3599. (# of citations = 60)
312. "Photoinduced Graft Polymerization of Styrene onto Polypropylene Substrates"; Li, Y.; DeSimone*, J. M.; Poon, C.-D.; Samulski*, E. T. *J. Appl. Polym. Sci.* **1997**, *64*, 883-889. (# of citations = 35)
313. "Cationic Dispersion Polymerizations in Liquid Carbon Dioxide"; Clark, M. R.; DeSimone*, J. M. *Macromolecules* **1997**, *30*, 6011-6014. (# of citations = 33)
314. "Dispersion Polymerization of Methyl Methacrylate in Supercritical Carbon Dioxide: The Influence of Helium Concentration on Particle Size and Particle Size Distribution"; Hsiao, Y.-L.; DeSimone*, J. M. *J. Polym. Sci.* **1997**, 2009-2013. (# of citations = 47)
315. "Emulsion Polymerization in a Hybrid Carbon Dioxide/Aqueous Medium: The Formation of Latex Particles Having a Narrower Molecular Weight Distribution"; Quadir, M. A.; Gilbert*, R. G.; DeSimone*, J. M. *Macromolecules* **1997**, *30*, 6015-6023. (# of citations = 30)
316. "Polymer Synthesis and Characterization in Liquid/Supercritical Carbon Dioxide"; Cooper, A. I.; DeSimone*, J. M. *Current Opinion in Solid State & Materials Science* **1996**, *1*, 761-768. (# of citations = 84)
317. "The Importance of Surfactants for Polymerizations in Carbon Dioxide"; Betts, D. E.; McClain, J. B.; DeSimone*, J. M. *Process Technol. Proc.* **1996**, *12* (High Pressure Chem. Eng.), 23-30. (# of citations = 1)
318. "Modification of Poly[(3-Hydroxybutyric acid)-co-(3-hydroxyvaleric acid)] Film Surfaces in an Oxygen Low Pressure Plasma"; Mas, A.; Jaaba, H.; Schue*, F.; Belu, A. M.; Kassis, C.; Linton, R. W.; DeSimone, J. M. *Macromol. Chem. Phys.* **1996**, *197*, 2331-2341. (# of citations = 20)
319. "XPS Studies of Fluorinated Acrylate Polymers and Block Copolymers with Polystyrene" Kassis, C.; Steehler, J. K.; Betts, D. E.; Guan, Z.; Romack, T. J.; DeSimone*, J. M.; Linton*, R. W. *Macromolecules* **1996**, *29*, 3247-3254. (# of citations = 183)
320. "Structural Characterization of a Polymer-Substituted Fullerene (Flagellene) by Small Angle Neutron Scattering" Affholter, K. A.; Bunick, G. J.; DeSimone, J. M.; Hunt, M. O.; Menciloglu, Y. Z.; Samulski*, E. T.; Wignall*, G. D. *Proc. Mater. Res. Soc.*

1996. (# of citations = not tracked by S.C.I.)

321. "Design of Non-ionic Surfactants for Supercritical Carbon Dioxide"; McClain, J. B.; Londono, D.; Combes, J. R.; Romack, T. J.; Canelas, D. A.; Betts, D. E.; Samulski, E. T.; Wignall*, G.; DeSimone*, J. M. *Science* **1996**, 274, 2049-2052. (# of citations = 365)

322. "Synthesis of Poly(2,6-dimethylphenylene oxide) in Carbon Dioxide"; Kapellen, K. K.; Mistele, C. D.; DeSimone*, J. M. *Macromolecules* **1996**, 29, 495-496. (# of citations = 50)

323. "Dispersion Polymerization of Styrene in Supercritical Carbon Dioxide: The Importance of Effective Surfactants"; Canelas, D. A.; Betts, D. E.; DeSimone*, J. M. *Macromolecules* **1996**, 29, 2818-2821. (# of citations = 257)

324. "Solution Properties of a CO₂-Soluble Fluoropolymer via Small Angle Neutron Scattering"; McClain, J. B.; Londono, D.; Combes, J. R.; Romack, T. J.; Canelas, D. A.; Betts, D. E.; Wignall, G.; Samulski, E. T.; DeSimone*, J. M. *J. Am. Chem. Soc.* **1996**, 118, 917-918. (# of citations = 143)

325. "Dispersion Polymerizations in Carbon Dioxide Using Siloxane-based Stabilizers"; Shaffer, K. A.; Jones, T.A.; Canelas, D. A.; DeSimone*, J. M. *Macromolecules* **1996**, 29, 2704-2706. (# of citations = 246)

326. "Ring-opening Metathesis Polymerizations in Supercritical Carbon Dioxide"; Mistelle, C.; Thorp, H.; DeSimone*, J. M. *J. Macromol. Sci.* **1996**, A33(7), 953-960. (# of citations = 39)

327. "Useful Model Systems for the Study of S_{RN}1 Chemistry in the Synthesis of Poly(arylene ether ketone)s"; Dukes, K. E.; Forbes*, M. D. E.; Jeevarajan, A. S.; Belu, A. M.; DeSimone*, J. M.; Linton, R. W.; Sheares, V. V. *Macromolecules* **1996**, 29, 3081-3089. (# of citations = 8)

328. "Evaluation of Matrix-Assisted Laser Desorption Ionization Mass Spectrometry for Polymer Characterization"; Belu, A.; DeSimone, J. M.; Linton*, R. W. *J. Am. Soc. Mass Spectr.* **1996**, 7, 11-24. (# of citations = 235)

329. "Neutron Scattering Characterization of Homopolymers and Graft-Copolymer Micelles in Supercritical Carbon Dioxide"; Chillura-Martino, D.; Triolo*, R.; McClain, J. B.; Combes, J. R.; Betts, D. E.; Canelas, D. A.; DeSimone, J. M.; Samulski, E. T.; Cochran, H. D.; Londono, J. D.; Wignall, J. D. *J. of Molecular Structure* **1996**, 383, 3-10. (# of citations = 89)

330. "Synthesis and SANS Structural Characterization of a Polymer-Substituted Fullerene (Flagellene) by Small Angle Neutron Scattering"; Affholter, K. A.; Bunick, G. J.; DeSimone, J. M.; Hunt, M. O.; Menciloglu, Y. Z.; Samulski*, E. T.; Wignall*, G. D. *Macromolecules* **1995**, 28, 6000-6006. (# of citations = 55)

331. "Aggregation of Amphiphilic Molecules in Supercritical Carbon Dioxide: A Small Angle X-Ray Scattering Study"; Fulton*, J. L.; Pfund, D. M.; McClain, J. B.; Romack, T. J.; Maury, E. E.; Combes, J. R.; Batten, H.; Samulski, E. T.; DeSimone*, J. M. *Langmuir* **1995**, 11, 4241-4249. (# of citations = 187)

332. "Branching Out into New Polymer Markets"; DeSimone*, J. M. *Science* **1995**, 269(5227), 1060-1061. (# of citations = 29)

333. "Termination of Living Anionic Polymerizations Using Chlorosilane Derivatives: General Synthetic Methodology for the Synthesis of End-functionalized Polymers"; Peters, M.A.; Belu, A. M.; Linton, R. W.; DeSimone*, J. M. *J. Am. Chem. Soc.* **1995**, 117, 3380-3388. (# of citations = 113)

334. "Free Radical Telomerization of Tetrafluoroethylene in Supercritical Carbon Dioxide"; Romack, T. J.; Combes, J. R.; DeSimone*, J. M. *Macromolecules* **1995**, 28, 1724-1726. (# of citations = 55)
335. "Cationic Polymerizations of Vinyl and Cyclic Ethers in Supercritical and Liquid Carbon Dioxide"; DeSimone*, J. M.; Clark, M.R. *Macromolecules* **1995**, 28, 3002-3004. (# of citations = 97)
336. "Formation of Poly(1,1,2,2-tetrahydroperfluorodecyl acrylate) Submicron Fibers and Particles From Supercritical Carbon Dioxide Solutions"; Mawson, S.; Johnston*, K. P., Combes, J. R.; DeSimone, J. M. *Macromolecules* **1995**, 28, 3182-3191. (# of citations = 244)
337. "Chain Polymerizations in Inert Near- and Supercritical Fluids"; Shaffer, K. A.; DeSimone*, J. M. *Trends in Polymer Science* **1995**, 3, 146-153. (# of citations = 149)
338. "Precipitation Polymerizations of Acrylic Acid in Supercritical Carbon Dioxide"; Romack, T. J.; Maury, E. E.; DeSimone*, J. M. *Macromolecules* **1995**, 28, 912-915. (# of citations = 172)
339. "Polymerization of Tetrafluoroethylene in a Hybrid Carbon Dioxide/Aqueous Medium"; Romack, T. J.; Kipp, B. E.; DeSimone*, J. M. *Macromolecules* **1995**, 28, 8432-8434. (# of citations = 44)
340. "Synthesis of Tetrafluoroethylene-based, Nonaqueous Fluoropolymers in Supercritical Carbon Dioxide"; Romack, T. J.; DeSimone*, J. M. *Macromolecules* **1995**, 28, 8429-8431. (# of citations = 93)
341. "Dispersion Polymerization of Methyl Methacrylate Stabilized with Poly(1,1-dihydroperfluorooctyl acrylate) in Supercritical Carbon Dioxide"; Hsiao, Y. L.; Maury, E. E.; DeSimone*, J. M. *Macromolecules* **1995**, 28, 8159-8166. (# of citations = 244)
342. "Cobalt(III)-Catalyzed Living Polymerization of Ethylene: Routes to End-Capped Polyethylene with a Narrow Molar Mass Distribution"; Brookhart*, M.; DeSimone, J. M.; Grant, B. E.; Tanner, M. J. *Macromolecules* **1995**, 28, 5378-5380. (# of citations = 146)
343. "Transition Metal Catalyzed Alternating Copolymerizations of Olefins and CO"; Rix, F.; Barborak, J.; Wagner, M.; Tahliani, S.; DeSimone, J. M.; Brookhart, M.; Elder, D. *Macromol. Symp* **1995**, 98, 219. (# of citations = 4)
344. "Homogeneous Free Radical Polymerizations in Supercritical Carbon Dioxide: 2. Telomerization of Vinylidene Fluoride"; Combes, J. R.; Guan, Z.; DeSimone*, J. M. *Macromolecules* **1994**, 27, 865-867. (# of citations = 68)
345. "Homogeneous Free Radical Polymerizations in Supercritical Carbon Dioxide: 1. Thermal Decomposition of 2,2'-Azobis(isobutyronitrile)"; Guan, Z.; Combes, J. R.; Menciloglu, Y. Z.; DeSimone*, J. M. *Macromolecules* **1993**, 26, 2663-2669. (# of citations = 233)
346. "Dispersion Polymerizations in Supercritical Carbon Dioxide"; DeSimone*, J. M.; Maury, E. E.; Menciloglu, Y. Z.; Combes, J. R.; McClain, J. B.; Romack, T. *Science* **1994**, 265, 356-359. (# of citations = 841)
347. "Fluorocarbon-based Heterophase Polymeric Materials: Block Copolymer Surfactants for Carbon Dioxide Applications" Guan, Z.; DeSimone*, J. M. *Macromolecules* **1994**, 27, 5527-5532. (# of citations = 166)
348. "Isomeric Poly(benzophenone)s: Synthesis of Highly Crystalline Poly(4,4'-benzophenone) and Amorphous Poly(2,5-benzophenone), a Soluble Poly(*p*-phenylene) Derivative"; Phillips, R. W.; Sheares, V. V.; Samulski, E. T.; DeSimone*, J. M. *Macromolecules* **1994**, 27, 2354-2356. (# of citations = 62)

349. "Near- and Supercritical Fluid Solvents for Living Anionic Polymerizations"; DeSimone*, J. M.; Maury, E. E.; Lemert, R. M.; Combes, J. R. *Makromol. Chem., Macromol. Symp.* **1993**, 67, 251-260. (# of citations = 8)
350. "Clarification of the Introduction to the Communication 'New Polymerization Methodology – Synthesis of Thiophene-based Poly(arylene ether ketone)s"; DeSimone*, J. M.; Sheares, V. V. *Macromolecules* **1993**, 26(10), 2642-2642. (# of citations = 2)
351. "Time-of-Flight Secondary Ion Mass Spectrometry of Polymeric Materials"; Linton*, R.W.; Mawn, M. P.; Belu, A.M.; DeSimone, J. M.; Hunt, Jr., M. O.; Menciloglu, Y. Z.; Cramer, H. G.; Benninghoven, A. *Surface and Interface Analysis* **1993**, 20, 991-999. (# of citations = 68)
352. "End-functionalized Polymers: 2. Quantification of Functionalization Using Time-of-Flight Static Secondary Ion Mass Spectrometry" Belu, A.; Hunt, Jr., M. O.; DeSimone*, J. M.; Linton*, R. W.; *Macromolecules* **1994**, 27, 1905-1910. (# of citations = 34)
353. "End-functionalized Polymers: 1. Synthesis and Characterization of Perfluoroalkyl-terminated Polymers"; Hunt, Jr., M. O.; Belu, A.; Linton, R. W.; DeSimone*, J. M. *Macromolecules* **1993**, 26, 4854 - 4859. (# of citations = 127)
354. "Thiophene-based Poly(arylene ether)s: 5. Imide-Arylene Ether Ketone Statistical Copolymers"; Sheares, V. V.; DeSimone*, J. M.; Hedrick*, J. L.; Labadie, J.W. *Polymer* **1994**, 35, 3782-3785. (# of citations = 1)
355. "Thiophene-based Poly(arylene ether)s: 4. Synthesis and Characterization of Poly(arylene ether sulfone)s"; Archibald, R. S.; Sheares, V. V.; Samulski, E. T.; DeSimone*, J. M. *Macromolecules* **1993**, 26, 7083-7085. (# of citations = 14)
356. "Thiophene-based Poly(arylene ether ketone)s: 2. Thermal and Mechanical Properties of Amorphous Systems Using Bis(*p*-fluorobenzoyl)aryl Monomers"; Brennan*, A. S.; Wang, Y. Q.; DeSimone, J. M.; Stempel, S.; Samulski, E. T. *Polymer* **1993**, 34, 807-812. (# of citations = 7)
357. "Thiophene-containing Poly(arylene ether ketone)s: 1. Polymerization of Bis(*p*-fluoro-benzoyl)aryl Systems with 4,4'-Isopropylidenediphenol"; DeSimone*, J. M.; Stempel, S.; Samulski, E. T. *Macromolecules* **1992**, 25, 2546-2550. (# of citations = 26)
358. "New Polymerization Methodology: Synthesis of Thiophene-based Poly(arylene ether ketone)s"; DeSimone*, J. M.; Sheares, V. V. *Macromolecules* **1992**, 25, 4235-4236; **1993**, 26, 2642. (# of citations = 12)
359. "Palladium (II) Catalysts for Living Alternating Copolymerization of Olefins and Carbon Monoxide"; Brookhart*, M. S.; Rix, F. C.; DeSimone, J. M.; Barborak, J. *J. Am. Chem. Soc.* **1992**, 114, 5894-5895. (# of citations = 338)
360. "Flagellenes: Nanophase-separated, Polymer-substituted Fullerenes"; Samulski*, E. T.; DeSimone, J. M.; Hunt, Jr., M. O.; Menciloglu, Y. Z.; Jarnagin, R.C.; York, G. A.; Lablat, K. B.; Wang, H. *Chemistry of Materials* **1992**, 4, 1153-1157. (# of citations = 183)
361. "Synthesis and Characterization of Poly(methyl methacrylate)-*g*-Poly(dimethylsiloxane) Copolymers: Bulk and Surface Properties"; Smith, S. D.; DeSimone, J. M.; Huang, H. H.; York, G. A.; Dwight, D. W.; Wilkes, G. L.; McGrath, J. E. *Macromolecules* **1992**, 25, 2575-2581. (# of citations = 138)

362. "Reactive-ion Etch-resistant Polysulfones for Microlithography"; Bowden*, M. J.; Gozdz, A. S.; DeSimone, J. M., McGrath*, J. E.; Ito, S.; Matsuda, M.; *Makromol. Chem., Macromol. Symp.* **1992**, 53, 125-137. (# of citations = 7)
363. "Synthesis of Fluoropolymers in Supercritical Carbon Dioxide"; DeSimone*, J. M.; Guan, Z.; Elsbernd, C. S. *Science* **1992**, 257, 945-947. (# of citations = 1,078)
364. "Solvatochromic Characterization of Near- and Supercritical Ethane, Propane, and Dimethylether Using 9-(9-perfluoroheptyl-9,9-dicyanovinyl)julolidine"; Lemert, R. M.; DeSimone*, J. M. *J. Supercrit. Fluids* **1991**, 4, 186-193. (# of citations = 23)
365. "Aluminium-27 NMR studies of aluminiumporphyrins"; DeSimone, J. M.; Stengle, M.; Riffle, J. S.; McGrath*, J. E. *Makromol. Chem., Macromol. Symp.* **1991**, 42/43, 373-385. (# of citations = 3)
366. "Synthesis, Bulk, Surface, and Microlithographic Characterization of Poly(1-butene sulfone)-g-poly(dimethylsiloxane)"; DeSimone, J. M.; York, G. A.; McGrath*, J. E.; Gozdz, A. S.; Bowden, M. J. *Macromolecules* **1991**, 24, 5330-5339. (# of citations = 54)
367. "Homogeneous and Multiphase Poly(methyl methacrylate) Graft Copolymers Via the Macro-monomer Method"; DeSimone, J. M.; Hellstern, A. M.; Siochi, E. J.; Smith, S. D.; Ward, T. C.; Gallagher, P. M.; Krukoni, V. J.; McGrath*, J. E.; *Makromol. Chem., Macromol. Symp.* **1990**, 32, 21-45. (# of citations = 28)
368. "Dilute Solution Properties of PMMA-g-PMMA's"; Siochi, E. J.; DeSimone, J. M.; Hellstern, A. M.; McGrath, J. E.; Ward*, T. C.; *Macromolecules* **1990**, 23, 4696-4706. (# of citations = 14)
369. "Synthesis and Characterization of Poly(1-butene sulfone)-g-Polydimethylsiloxane): A New Electron-Beam Resist for Two-Layer Lithography"; DeSimone, J. M.; York, G. A.; Smith, S. D.; Gozdz, A. S.; Bowden, M. J.; McGrath*, J. E. *Proceedings of the 3rd International SAMPE Electronics Conference* **1989**, 3, 872-881. (# of citations = not tracked by S.C.I.)
370. "Advances in Heterophase Copolymer Synthesis"; McGrath*, J. E.; DeSimone, J. M.; Hellstern, A. M.; Long, T. E.; Hoover, J. M.; Smith, S. D.; Broske, A. D.; Cho, C.; Yoo, Y.; Wood, P.; DePorter, C. D.; Riffle, J. S. In *Multiphase Macromolecular Systems*; Culbertson, W., Ed.; American Chemical Society: Washington, D. C.; **1989**, p. 213-226. . (# of citations = not tracked)
371. "Synthesis, Characterization, and Chemical Composition Distribution Investigations of Graft Copolymers Prepared by the Macromonomer Technique"; DeSimone, J. M.; Hellstern, A. M.; Ward, T. C.; McGrath*, J. E.; Smith, S. D.; Gallagher, P. M.; Krukoni, V. J.; Stejskal, J.; Strakova, D.; Kratochvil, P. In *Multiphase Macromolecular Systems*; Culbertson, W., Ed.; American Chemical Society: Washington, D. C.; **1989**, p. 227-241. (# of citations = not tracked)

Funded Research Projects (Total grants raised: \$97,784,148)

1. "Nano Approaches to Modulate Host Cell Response for Cancer Therapy: Project 2 – Nanoparticle-based Immune Modulators in Cancer Therapy & Vaccines," National Institutes of Health, \$440,489, 9/2015 – 7/2020
2. "University Cancer Research Fund"; \$175,000; 7/2010 – 6/2017
3. "Nanoparticle formulations of DNA repair inhibitors to improve chemoradiotherapy"; NIH/NCI; \$78,578; 8/2013 – 5/2018

4. "Preclinical Therapeutic Development for Multiple Sclerosis"; National Multiple Sclerosis Society; \$150,000; 4/2014 – 3/2019
5. "Collaborative Research: SusChEM: Perfluoroether-based Polymer Electrolytes for Lithium Batteries"; NSF; \$66,004; 9/2015 – 8/2018
6. "PRINT Butyrylcholinesterase Delivery"; \$4,477,660; 10/2013 – 9/30/2018
7. "Urinary Tract Infection Prevention and Spinal Cord Injury"; \$1,001,008; DeSimone Co-PI; 7/2013 – 6/2016
8. "Molecular Mosquitocides: Development of a robust, platform-based approach for sustainable insecticidal control of Anopheline mosquitoes; Particle based delivery of nucleic acid sequences for control of mosquitoes"; DeSimone (Co-PI), \$297,495; 7/1/11 – 6/30/14.
9. "Nanoparticle-Targeted Peptide Vaccines for Prostate Cancer: The Harvard-Hopkins-Carolina Consortium"; J.M. DeSimone (Co-PI), \$500,000/year for 2 years; \$154,902/year at UNC-CH.
10. "Carolina Center of Cancer Nanotechnology" Chapel Hill, NC, J.M. DeSimone (Co-PI), 9/30/2005-9/30/2015; 1-U54-CA151652-01; 530282; \$31,719,352
11. "Delivery of Biological Therapeutics" Office of the Director, Pioneer Award, National Institutes of Health, Chapel Hill, NC, J.M. DeSimone (PI), 9/30/2009-7/31/2014; 1DP1OD006432 ; 530416; \$3,750,000
12. "Novel Perfluoropolyether and Fouling Release Coatings: Investigation of Structure" Office of Naval Research, Chapel Hill, NC, J.M. DeSimone (PI), 2/1/2010-1/31/2013;N00014-07-1-02612; 535775; \$435,525
13. "Engineered Organic Particles of Controlled Size, Shape and Surface Chemistry" National Institute of Biomedical Imaging and Bioengineering, Chapel Hill, NC, J.M. DeSimone (PI), 5/1/2009-4/30/2013; 1R01EB009565; \$653,766
14. "Red Blood Cells Mimic", National Heart, Lung, and Blood Institute, Chapel Hill, NC, J.M. DeSimone (PI), 3/11/2010-2/29/2012; 1R21HL092814; \$201,684
15. "University Cancer Research Fund" Chapel Hill, NC, J.M. DeSimone (Co-PI), 2007-2011; \$1,200,000
16. "ARRA – Biomimetic Approach to the Fabrication of Red Blood Cell Mimics" National Heart, Lung and Blood Institute, Chapel Hill, NC, J.M. DeSimone (PI) 7/1/2009-6/30/2011; 1-R21-HL092814-01 ; 552277; \$361,926
17. "EAGER: Meso-Polymers" NSF Research, Chapel Hill, NC, J.M. DeSimone (PI), 5/1/2009-4/30/2011; DMR-0923604 ; 554766; \$278,973
18. "Research Agreement between UNC and Liquidia in the area of PFPE, Lithography, Microfluidics, Nanostudies and membrane studies" Liquidia Technologies, Chapel Hill, NC, J.M. DeSimone (PI) 9/1/2005-8/31/2010; \$1,537,819
19. "UNC-CH EFRC: Solar Fuels and Next Generation" US Department of Energy, Chapel Hill, NC, J.M. DeSimone (Co-PI), 8/1/2009-7/31/2010; 535930; \$70,000
20. "NSF Science & Technology Center for Environmental Responsible Solvents and Processes" NSF, Chapel Hill, NC, J.M. DeSimone (PI), 11/1/1999-4/30/2010;537494: \$36,117,733

21. "Novel Perfluoropolyether and Fouling Release Coatings: Investigation of Structure" Office of Naval Research, Chapel Hill, NC, J.M. DeSimone (PI), 11/1/2006-5/31/2010; 535763; \$450,000
22. "Designer Functional Particles for Controlled Jamming: First Step Toward Soft Robotics"; Sub contract from University of Chicago, Chapel Hill, NC, J.M. DeSimone (PI), 5/21/2008-6/20/2010;543091; \$541,596
23. "Fabrication and Characterization of Well-Ordered Polymer Composite Dielectric" Office of Naval Research, Chapel Hill, NC, J.M. DeSimone (PI), 5/1/2008-8/31/2010; \$186,274
24. "Polymerization of Fluoromonomers in Supercritical Fluids, E.I.DuPont NeNemours&Co., Chapel Hill, NC, J.M. DeSimone (PI), 12/17/1992-1/1/2009; \$2,555,000
25. "The Pharmacodynamics of Genes and Oligonucleotides" National Institute of General Medicine Science, Chapel Hill, NC, J.M. DeSimone (Co-PI), 4/1/2000-3/31/2009;532218; \$560,000.
26. "Proton Exchange Membranes for Next Generation Fuel Cells" US Department of Energy, Chapel Hill, NC, J.M. DeSimone (PI), 9/15/2005-9/14/2009; 535908,\$900,000
27. "Integrated Nanofluidic Electronic Sensor Technologies for Army Applications" US Army Research Office, Chapel Hill, NC, J.M. DeSimone (PI), 8/15/2005-3/31/2009;536848; W911NF-05-2-0047 \$3,006,000
28. "Environmentally Responsible Processes for High Resolution Dry Lithography of Semiconductor Wafers", US Environmental Protection Agency, Chapel Hill, NC, J.M. DeSimone (PI), 8/1/2005-7/31/2007;R083245401; \$678,600
29. "Replicating Viral Particles Using Nano-molding Techniques: The Particle Foundry" US Army Research Office, Chapel Hill, NC, J.M. DeSimone (PI), 7/25/2006-7/24/2007; W911NF-06-1-0343; \$200,000
30. "Targeted Delivery Via Protein-Carbohydrate Interactions", National Cancer Institute, Chapel Hill, NC, J.M. DeSimone (PI), 12/1/2000-2/2/2007; \$43,996
31. "Novel Perfluoropolyether Fouling Release Coatings: Investigations into the Effect of Polymer Structure & Material Properties on Surface Properties" Office of Naval Research, Chapel Hill, NC, J.M. DeSimone; 12/1/2001-9/30/2006; 535763; \$700,670
32. "Microfluidic Devices - Aaryn Jones Scholarship" US Environmental Protection Agency, Chapel Hill, NC, J.M. DeSimone (PI), 9/8/2003-9/8/2006; \$264,030
33. "Supported Research Agreement with Synecor", Synecor, Chapel Hill, NC, J.M. DeSimone (PI), 5/1/2005-4/30/2006; \$37,284
34. "Dry Lithography: Environmentally Responsible Processes For High Resolution Pattern Transfer & Elimination of Image Collapse" US Environmental Protection Agency/NSF, Chapel Hill, NC, J.M. DeSimone (PI), 3/11/2002-3/10/2005; \$349,966
35. "Processing for sub-micron imaging on supercritical CO₂: An integrated approach to the deposition and development of photoresists" NSF; Chapel Hill, NC, J.M. DeSimone (PI), 2/15/2002-1/31/2005; \$22,749

36. "Request for Proposal for Independent Technical Consultation of Low Adhesive Coatings to the Shuttle External Tank" Swales Aerospace, Chapel Hill, NC, J.M. DeSimone (PI), 5/5/2005-7/30/2005; \$17,844
37. "Carbon Dioxide in Nature and Technology Internships in Public Education" North Carolina State University, Chapel Hill, NC, J.M. DeSimone (PI) 1/1/2002-12/31/2004; \$27,933
38. "Very Low Surface Energy Heterophase Polymeric Materials Separations" University of Texas at Austin, US Navy; Chapel Hill, NC, J.M. DeSimone (PI) 5/1/2002-9/30/2004; \$184,935
39. "Nitoxide Assisted Living Free Radical Polymerization of Block Copolymers in Supercritical CO₂. Characterization by Light Scattering Techniques" NSF Training, Chapel Hill, NC, J.M. DeSimone (PI), 7/1/2001-6/30/2004; \$13,080
40. "New Materials for Solvent and Chemically Resistant Microfluidic Devices with Tailored Surface Functionalities" Subcontract from University of California, Chapel Hill, NC, J.M. DeSimone (PI), 10/1/2004-12/31/2004; \$185,000
41. "Kenan Center for the Utilization of CO₂ in Manufacturing", North Carolina State University, Chapel Hill, NC, J.M. DeSimone (PI), 7/1/1997-6/30/2004; DuPont, Air Products, Atochem, Dow Chemical, Micell Technologies, Nalco, Occidental Chemical, Praxair, Rohm and Haas, Sandia National Labs, Solvay, Thar Design, UHDE; \$1,585,534
42. "Very Low Surface Energy Heterophase Polymeric Materials for Membranes" North Carolina State University, Chapel Hill, NC, J.M. DeSimone (PI), 3/1/2000-11/30/2002; 546754; 94-0574-01\$145,000
43. "2000 Research and Engineering Apprenticeship Program" Academy of Applied Science, Chapel Hill, NC, J.M. DeSimone (PI), 7/1/2000-8/31/2001; \$2,500
44. "Research Agreement with Solvay (SAPI PVF Project), Solvay Advanced Polymers, Inc., Chapel Hill, NC, J.M. DeSimone (PI), 10/1/1997-6/30/2001; \$281,000
45. "Presidential Faculty Fellow Award", 5-37123; DMR-9350334NSF, Chapel Hill, NC, J.M. DeSimone (PI), 8/15/1993-1/31/1998; \$337,500
46. "NSF Young Investigator's Award" ; 537048; DMR-9258571Chapel Hill, NC, J.M. DeSimone (PI), 8/15/1992-1/31/1995, \$100,000
47. "Synthesis Strategies for Tailored Energetic Polymers" Office of Naval Research, Chapel Hill, NC, J.M. DeSimone (PI), 6/1/1992-5/31/1993; 535770; N00014-92-J-1758;\$32,657
48. "New Thiophene Based Materials" Office of Naval Research, Chapel Hill, NC, J.M. DeSimone (PI) 12/1/1991-11/30/1994,535766 N00014-92-J-1374; \$361,988

Issued Patents:

1. **US Patent 5,496,901** March 5, 1996; "Method of Making Fluoropolymers in Carbon Dioxide"; Inventor - J. M. DeSimone; Filed: March 27, 1992.
2. **US Patent 5,312,882**; May 17, 1994; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.

3. **US Patent 5,266,677**; November 30, 1993; "Thiophene-based Materials"; Inventors - E. T. Samulski and J. M. DeSimone.
4. **US Patent 5,354,836**; November 11, 1994; ; "Thiophene-based Materials"; Inventors - E. T. Samulski and J. M. DeSimone.
5. **US Patent 5,358,836**; October 21, 1994; "Thiophene-based Materials"; Inventors - E. T. Samulski and J. M. DeSimone.
6. **US Patent 5,360,869**; November 1, 1994; "Method of Making Fluorinated Copolymers"; Inventors - J. M. DeSimone and M. O. Hunt, Jr.
7. **US Patent 5,410,013**; April 25, 1995; "Thiophene-containing Poly(arylene ether) Sulfones"; Inventors - E. T. Samulski and J. M. DeSimone.
8. **US Patent 5,420,224**; May 30, 1995; "Thiophene-based Polymers: Polybenzoxazoles"; Inventors - E. T. Samulski and J. M. DeSimone.
9. **US Patent 5,382,623**; January 17, 1995; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
10. **US Patent 5,514,759**; May 7, 1996; "Multi-phase Polymerization Process"; Inventors - J. M. DeSimone, T. J. Romack.
11. **US Patent 5,451,633**; September 19, 1995; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Menciloglu, J. R. Combes.
12. **US Patent 5,506,317**; April 9, 1996; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
13. **US Patent 5,527,865**; June 18, 1996; "Multi-phase Polymerization Process"; Inventors - J. M. DeSimone, T. J. Romack.
14. **US Patent 5,530,077**; June 25, 1996; "Multi-phase Polymerization Process"; Inventors - J. M. DeSimone, T. J. Romack.
15. **US Patent 5,561,216**; October 1, 1996; "Late Transition Metal Catalysts for the Co- and Terpolymerization of Olefins and Alkyne Monomers with Carbon Monoxide"; Inventors - J. C. Barborak, M. S. Brookhart, and J. M. DeSimone.
16. **US Patent 5,589,105**; December 31, 1996; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
17. **US Patent 5,618,894**; April 8, 1997; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
18. **US Patent 5,639,836**; June 17, 1997; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
19. **South African Patent 96/4546**; February 26, 1997; "Process for the Preparation of Polyester in Carbon Dioxide"; Inventors: J. M. DeSimone and Gerhard Maier.
20. **US Patent 5,674,957**; October 7, 1997; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
21. **US Patent 5,679,737**; October 21, 1997; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
22. **US Patent 5,672,667**; September 30, 1997; "Multi-phase Polymerization Process"; Inventors - J. M. DeSimone, T. J. Romack.
23. **US Patent 5,688,879**; November 18, 1997; "Method of Making Fluoropolymers in Carbon Dioxide"; Inventor - J. M. DeSimone.

24. **US Patent 5,739,223**; April 14, 1998; "Method of Making Fluoropolymers in Carbon Dioxide"; Inventor - J. M. DeSimone.
25. **US Patent 5,780,553**; July 14, 1998; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
26. **US Patent 5,783,082**; July 21, 1998; "Novel Cleaning Process Using Carbon Dioxide as a Solvent and Employing Molecularly Engineered Surfactants"; Inventors – J. M. DeSimone, T. J. Romack, J. B. McClain, D. E. Betts.
27. **US Patent 5,824,726**; October 20, 1998; "Multi-phase Polymerization Process"; Inventors - J. M. DeSimone, T. J. Romack.
28. **US Patent 5,840,820**; November 24, 1998; "Olefin Metathesis Reactions in Carbon Dioxide"; Inventors - J. M. DeSimone, C. Mistele.
29. **US Patent 5,855,819**; January 5, 1999; "Synthesis of Conductive Polymers in Liquid and Supercritical Carbon Dioxide"; Inventors - J. M. DeSimone, Yizeng Ni.
30. **US Patent 5,860,467** January 19, 1999; "Use of CO₂-Soluble Materials in Making Molds"; Inventors - J. M. DeSimone, Esin Gulari, Charles Menke; Filed: December 3, 1996.
31. **US Patent 5,863,612** January 26, 1999; "Method of Making Fluoropolymers in Carbon Dioxide"; Inventor - J. M. DeSimone; Filed: February 7, 1997.
32. **US Patent 5,866,005**; February 2, 1999; "Novel Cleaning Process Using Carbon Dioxide as a Solvent and Employing Molecularly Engineered Surfactants"; Inventors – J. M. DeSimone, T. J. Romack, J. B. McClain, D. E. Betts.
33. **US Patent 5,872,157**; February 12, 1999; "Method for Olefin Oxidation"; Inventors – J. M. DeSimone, T. J. Romack.
34. **US Patent 5,922,833** July 13, 1999; "Method of Making Fluoropolymers in Carbon Dioxide"; Inventor - J. M. DeSimone.
35. **US Patent 5,939,501**; August 17, 1999; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
36. **US Patent 5,939,502**; August 17, 1999; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
37. **US Patent 5,945,477**; August 31, 1999; "Process for the Preparation of Polyester in Carbon Dioxide"; Inventors: J. M. DeSimone and Gerhard Maier.
38. **US Patent 5,944,996**; August 31, 1999; "Novel Cleaning Process Using Carbon Dioxide as a Solvent and Employing Molecularly Engineered Surfactants"; Inventors – J. M. DeSimone, T. J. Romack, J. B. McClain, D. E. Betts.
39. **US Patent 5,977,292**; November 2, 1999; "Process for the Preparation of Polyester in Carbon Dioxide"; Inventors: J. M. DeSimone and Gerhard Maier.
40. **US Patent 5,981,673**; November 9, 1999; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
41. **United Kingdom Patent 2,315,755**; December 8, 1999; "Process for the Preparation of Polyester in Carbon Dioxide"; Inventors: J. M. DeSimone and Gerhard Maier.
42. **US Patent 6,001,418**; December 14, 1999; "Spin Coating Method and Apparatus for Liquid Carbon Dioxide Systems"; Inventors: J. M. DeSimone and Ruben Carbonell.

43. **US Patent 6,010,542**; January 4, 2000; "Method of Dyeing Substrates in Carbon Dioxide"; Inventors – J. DeYoung, James McClain, J. M. DeSimone, T. J. Romack.
44. **US Patent 6,025,459**; February 15, 2000; "Synthesis of Polyamides in Liquid and Supercritical Carbon Dioxide"; Inventors: J. M. DeSimone, Givens, R., Ni, L.
45. **Mexican Patent 196010**; April 14, 2000; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
46. **US Patent 6,083,565**; July 4, 2000; "Method for Meniscus Coating with Liquid Carbon Dioxide"; Inventors: J. M. DeSimone, Ruben Carbonell, Brian Novick.
47. **European Patent 96909747.6**; Aug. 3, 1996; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
48. **US Patent 6,107,443**; August 22, 2000; "Methods for Solid State Polymerizing Polyesters Utilizing Carbon Dioxide"; Inventors: J. M. DeSimone and Gerhard Maier.
49. **US Patent 6,127,000**; October 3, 2000; " Method and Compositions for Protecting Civil Infrastructure"; Inventors: R. G. Carbonell; J. M. DeSimone; F. E. Henon.
50. **German Patent DE 696 09 168.2-08**; July 5, 2000; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
51. **German Patent DE 69625092.6**; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
52. **Italian Patent IT 69846BE/2000**; July 5, 2000; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
53. **Italian Patent 813548**; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
54. **Italian Patent 957113**; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
55. **United Kingdom Patent GB 0 813 548**; July 5, 2000; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
56. **British Patent 957113**; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
57. **French Patent FR 0 813 548**; July 5, 2000; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
58. **French Patent 957113**; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
59. **Dutch Patent 957113**; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
60. **US Patent 6,176,895**; January 23, 2001; "Polymers for Metal Extractions in Carbon Dioxide"; Inventors-J. M. DeSimone and S. Crette.
61. **US Patent 6,211,422**; April 3, 2001; "Enzyme Catalysis in Carbon Dioxide Fluids"; Inventors: J. M. DeSimone, R. Carbonell
62. **US Patent 6,224,774**; May 1, 2001; "Method of Entraining Solid Particulates in Carbon Dioxide Fluid"; Inventors: J. M. DeSimone, T. Romack, J. B. McClain, D. E. Betts
63. **US Patent 6,240,936**; June 5, 2001; "Methods of Spin Cleaning Substrates Using Carbon Dioxide Liquids"; Inventors: J. M. DeSimone and Ruben Carbonell.

64. **US Patent 6,248,136**; June 19, 2001; "Method for Carbon Dioxide Dry Cleaning with Integrated Distribution"; Inventors: J. M. DeSimone, T. Romack, J. B. McClain, J. DeYoung, R. B. Lienhart, K. Huggins.
65. **US Patent 6,288,202**; September 11, 2001; "Synthesis of Polycarbonates Using Carbon Dioxide"; Inventors: J. M. DeSimone, R. Givens, M. Jikei, J. D. Cohen.
66. **US Patent 6,298,902**; October 9, 2001; "Use of CO₂-Soluble Materials in Making Molds"; Inventors: J. M. DeSimone, Esin Gulari, Charles Menke.
67. **US Patent 6,332,342**; December 25, 2001; "Method for Carbon Dioxide Dry Cleaning with Integrated Distribution"; Inventors: J. M. DeSimone, T. Romack, J. B. McClain, J. DeYoung, R. B. Lienhart, K. Huggins.
68. **US Patent 6,383,289**; May 7, 2002; "Apparatus for Liquid Carbon Dioxide Systems"; Inventors: J. M. DeSimone and R Carbonell.
69. **US Patent 6,403,663**; June 11, 2002; "Method of Making Foamed Materials Using Surfactants and Carbon Dioxide"; Inventors: J. M. DeSimone and R Carbonell.
70. **US Patent 6,426,391**; July 30, 2002; "Fluorination in Liquid and Supercritical Carbon Dioxide"; Inventors - J.M. DeSimone, T.J. Romack.
71. **US Patent 6,451,287**; September 17, 2002; "Fluorinated Copolymer Surfactants and Use Thereof in Aerosol Compositions"; Inventors: J. M. DeSimone, Terri Johnson Carson, John Miller, Sharon Wells.
72. **Canadian Patent 2,168,423**; July 9, 2002; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
73. **European Patent 0638095** July 8, 2002; "Method of Making Fluoropolymers"; Inventor - J. M. DeSimone.
74. **Mexican Patent 206607**; February 8, 2002; "Multi-phase Polymerization Process"; Inventors - J. M. DeSimone, T. J. Romack.
75. **US Patent 6,497,921**; December 24, 2002; "Method for Meniscus Coating with Liquid Carbon Dioxide"; Inventors: J. M. DeSimone, Ruben Carbonell, Brian Novick.
76. **US Patent 6,500,273**; December 31, 2002; "Spin Cleaning Methods"; Inventors: J. M. DeSimone and Ruben Carbonell.
77. **US Patent 6,512,062**; January 28, 2003; "Polymerization of Non-Fluorinated Monomers in Carbon Dioxide"; Inventors: J. M. DeSimone, T. J. Carson, H. Shiho, J. Lizotte.
78. **US Patent 6,517,633**; February 11, 2003; "Apparatus for Meniscus Coating with Liquid Carbon Dioxide"; Inventors: J. M. DeSimone, Ruben Carbonell, Brian Novick.
79. **US Patent 6,623,355**; September 23, 2003; "Methods, apparatus and slurries for Chemical Mechanic Planarization; Inventors: J.B. McClain, J. DeYoung, J. M. DeSimone
80. **European Patent 1126925**; Issued: Sept. 10, 2003; "Method and apparatus for coating with liquid or supercritical carbon dioxide"; Inventors: R. G. Carbonell, J. M. DeSimone, B. J. Novick.
81. **US Patent 6,641,678**; November 4, 2003; "Methods for Cleaning Microelectronic Device Structures with Aqueous Carbon Dioxide Systems; Inventors: J.B. McClain, J. DeYoung, S. Gross, J. M. DeSimone
82. **Japanese Patent 3,476,016**; September 26, 2003; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes

83. **US Patent 6,652,920**; November 25, 2003; "Method for Meniscus Coating a Substrate with a Polymeric Precursor"; Inventors: J. M. DeSimone, Ruben Carbonell, Brian Novick
84. **Chinese Patent CN1100797C**; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
85. **US Patent 6,684,525**; February 3, 2004; "Phosphate Fluorosurfactants in Carbon Dioxide"; Inventors - J. M. DeSimone; J. Keiper.
86. **Japanese Patent 3512796**, January 16, 2004; "Method of Making Fluoropolymers in Carbon Dioxide"; Inventor - J. M. DeSimone.
87. **US Patent 6,716,945**; April 6, 2004; "Multimodal Fluoropolymers and Methods of Making the Same"; Inventors - J. M. DeSimone; George Roberts, Paul Charpentier.
88. **European Patent 0711311**; October 15, 2003; "Heterogeneous Polymerizations in Carbon Dioxide"; Inventors - J. M. DeSimone, E. E. Maury, Y. Z. Menciloglu, J. R. Combes.
89. **US Patent 6,736,996**; May 18, 2004; "Compositions for Protecting Civil Infrastructure"; Inventors: R. G. Carbonell; J. M. DeSimone; F. E. Henon.
90. **US Patent 6,743,078**; June 1, 2004; "Methods, apparatus and slurries for Chemical Mechanic Planarization; Inventors: J.B. McClain, J. DeYoung, J. M. DeSimone
91. **US Patent 6,747,179**; June 8, 2004; Carbon Dioxide Soluble Polymers and Swellable Polymers for Carbon Dioxide based Application; Inventors: J. M. DeSimone, Eva Birnbaum, Ruben Carbonell, Stephanie Crette, James B. McClain, T. Mark McClesky, Kimberly Powell, Timothy Romack, Willaim Tumas.
92. **US Patent 6,763,840**; July 20, 2004; "Methods and apparatus for Cleaning Substrates using Liquid Carbon Dioxide; Inventors: J.B. McClain, J. DeYoung, J. M. DeSimone
93. **US Patent 6,764,809**; July 20, 2004; "CO₂-Processes, photoresists, polymers and photoactive compounds for Microlithography"; Inventors: J. M. DeSimone, Ruben Carbonell, Jonathan Kendall, Chris McAdams.
94. **US Patent 6,765,030**; July 20, 2004; "Methods of Forming Polymeric Structures Using Carbon Dioxide and Polymeric Structures Formed Thereby"; Inventors: J. M. DeSimone, Sarah Paisner.
95. **US Patent 6,790,870**; September 14, 2004; "Methods of Making Foamed Materials of Blended Thermoplastic Polymers Using Carbon Dioxide"; Inventors: J. M. DeSimone, S. A. Khan, J. R. Royer, R. J. Spontak, T. A. Walker, Y. Gay, S. Siripurapu.
96. **US Patent 6,900,267**; May 31, 2005; "Methods of CO₂-Assisted Reactive Extrusion": Inventors: Royer, J.; DeSimone, J. M.; Roberts, G.; Kahn, S.
97. **US Patent 6,887,266**; May 3, 2005; "Endoprostheses and Methods of Manufacture": Inventors: Williams, M. S.; Glenn, Richard A.; Smith, Jeffrey A.; Holbrook, Kevin, D.; DeSimone, J. M.
98. **US Patent 6,914,105**; July 5, 2005; "Continuous Process for Making Polymers in Carbon Dioxide"; Inventors - J. M. DeSimone; George Roberts, Paul Charpentier.
99. **US Patent 6,929,904**; August 16, 2005; "Positive Tone Lithography with Carbon Dioxide Development Systems"; Inventors: J.B. McClain, J. DeYoung, J. M. DeSimone
100. **US Patent 6,932,930**; August 23, 2005; "Intraluminal Prostheses having Polymeric Material With Selectively Modified Crystallinity and Methods of Making the Same": Inventors: Williams, M. S.; DeSimone, J. M.

101. **Canadian Patent 2,236,529**; December 28, 2005; "Novel Cleaning Process Using Carbon Dioxide as a Solvent and Employing Molecularly Engineered Surfactants"; Inventors – J. M. DeSimone, T. J. Romack, J. B. McClain, D. E. Betts.
102. **European Patent 1177159**; December 28, 2005; "Fluorination in Liquid and Supercritical Carbon Dioxide"; Inventors - J. M. DeSimone, T. J. Romack.
103. **Chinese Patent CN1246429C**; Issued: March 22, 2006; "Phosphate Fluorosurfactants for Use in Carbon Dioxide"; DeSimone, et. al.
104. **German Patent No. 60203269.5**; "Nano- and Micro-Cellular Foamed Thin Walled Materials and Processes and Apparatuses for Making the Same"; Royer, J.; Siripurapu, S; DeSimone, J. M. 2006
105. **US Patent 7,029,832**; Issued: April 18, 2006; "Immersion Lithography Methods Using Carbon Dioxide"; Inventors: Jason Rolland, and J. M. DeSimone.
106. **US Patent 7,063,839**; Issued June 20, 2006; "Continuous Method and Apparatus for Separating Polymer from a High Pressure Carbon Dioxide Fluid Stream"; Inventors: Joseph Royer, Paul Charpentier, George Roberts and Joseph M. DeSimone.
107. **Chinese Patent CN1263710C**; July 12 28, 2006; "Fluorination in Liquid and Supercritical Carbon Dioxide"; Inventors - J. M. DeSimone, T. J. Romack.
108. **US Patent 7,122,060**; October 17, 2006; "Phosphate Fluorosurfactants in Carbon Dioxide"; Inventors - J. M. DeSimone; J. Keiper.
109. **US Patent 7,141,061**; November 28, 2006; "Photocurable Endoprostheses System": Inventors: Williams, M. S.; Glenn, Richard A.; Smith, Jeffrey A.; Holbrook, Kevin, D.; DeSimone, J. M.
110. **US Patent 7,163,554**; Issued: Jan. 16, 2007; "Endoprostheses and methods of manufacture"; Inventors: M. S. Williams, R. A. Glenn, J. A. Smith, K. D. Holbrook, J. M. DeSimone.
111. **Japanese Patent 3936720**; March 30, 2007; "Multi-phase Polymerization Process"; Inventors - J. M. DeSimone, T. J. Romack.
112. **Chinese Patent CN1310973C**; April 18, 2007; "Multimodal Fluoropolymers and Methods of Making the Same"; Inventors - J. M. DeSimone; George Roberts, Paul Charpentier.
113. **Chinese Patent ZL98803810.2**; July 24, 2007; "Method of Making Fluoropolymers"; Inventors - J. M. DeSimone; Tim Romack.
114. **Japanese Patent 3996637**; August 10, 2007; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
115. **Japanese Patent 4036893**; November 9, 2007; "Multi-phase Polymerization Process"; Inventors - J. M. DeSimone, T. J. Romack.
116. **Chinese Patent CN100343292C**; October 17, 2007; "Non-aqueous Polymerization of Fluoromonomers"; Inventors - J. M. DeSimone, T. J. Romack.
117. **European Patent 1172383**; April 16, 2008; "Method of Making Fluoropolymers"; Inventors - J. M. DeSimone.
118. **European Patent 1328610**; July 2, 2008; "Phosphate Fluorosurfactants for use in Carbon Dioxide"; Inventors - J. M. DeSimone; J. Keiper.
119. **US Patent 7,410,620**; August 12, 2008; "Apparatus for the Continuous Production of Polymers in Carbon Dioxide"; Inventors - J. M. DeSimone; George Roberts, Paul Charpentier.
120. **US Patent 7,435,495**; October 14, 2008; "Liquid Materials for Use in Electrochemical Cells"; Inventors - J. M. DeSimone; Zhilian Zhou.

121. **Brazilian Patent** PI0611827.5; Issued: Dec. 2, 2008; "Nanoparticle Fabrication Methods, Systems, and Materials"; Inventors: J. M. DeSimone, G. Denison, L. Euliss, A. Exner-Dennis, B. W. Maynor, J. P. Rolland, E. T. Samulski, R. J. Samulski.
122. **US Patent 7,641,828**; Issued January 5, 2010; Method of Making Orthodontic Appliances; Inventors: J. M. DeSimone and Robert E. Tricca
123. **US Patent 7,857,748**; December 28, 2010; "Photocurable Endoprostheses Methods of Manufacture": Inventors: Williams, M. S.;
124. **Singapore Patent 120640**; October 31, 2008; "Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. a.; Yarbrough, J.; Van Dam, M.
125. **Canadian Patent** 20048004194; July 22, 2009; "Methods for Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography"; DeSimone, J. M.; Rolland, J. P. Maynor, B. W.; Euliss, L. E.; Rothrock Denison, G.; Dennis, A. E.; Samulski, E. T.; Samulski, R. J.
126. **Chinese Patent** CN100517584C; July 22, 2009; "Methods for Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography"; DeSimone, J. M.; Rolland, J. P. Maynor, B. W.; Euliss, L. E.; Rothrock Denison, G.; Dennis, A. E.; Samulski, E. T.; Samulski, R. J.
127. **Mexico Patent** 266246; April 28 2009; "Methods for Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography"; DeSimone, J. M.; Rolland, J. P. Maynor, B. W.; Euliss, L. E.; Rothrock Denison, G.; Dennis, A. E.; Samulski, E. T.; Samulski, R. J.
128. **Singapore Patent** 12315230; Sept 2009; "Methods for Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography"; DeSimone, J. M.; Rolland, J. P. Maynor, B. W.; Euliss, L. E.; Rothrock Denison, G.; Dennis, A. E.; Samulski, E. T.; Samulski, R. J.
129. **US Patent 7,658,989**; Nano-and micro-cellular foamed thin-walled material, and processes and apparatuses for making the same"; Inventors: J. M. DeSimone, S. Siripurapu, S. A. Khan, R. J. Spontak, J. Royer.
130. **US Patent 7,704,276**; Issued: April 27, 2010; "Endoprostheses and methods of manufacture"; M. S. Williams, R. A. Glenn, J. A. Smith, K. D. Holbrook, J. M. DeSimone
131. **Australia Patent** AU 2004-31862; July 2011; "Methods for Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography"; DeSimone, J. M.; Rolland, J. P. Maynor, B. W.; Euliss, L. E.; Rothrock Denison, G.; Dennis, A. E.; Samulski, E. T.; Samulski, R. J.
132. **Japanese Patent 4586021**; August 2010; "Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. a.; Yarbrough, J.; Van Dam, M. Glenn, Richard A.; Smith, Jeffrey A.; Holbrook, Kevin, D.; DeSimone, J. M.
133. **US Patent 7,919,162**; April 5, 2011; "Intraluminal Prostheses Having Polymeric Material with Selectively Modified Crystallinity and Methods of Making Same": Inventors: DeSimone, J. M.; Williams, M. S.
134. **Canadian Patent 2,503,393**; Issued: April 26, 2011; "Photo curable endoprosthesis and method of manufacture"; Inventors: M. S. Williams, R. A. Glenn, J. A. Smith, K. D. Holbrook, J. M. DeSimone
135. **US Patent 7,943,079**; Issued May 17, 2011; Method of Making Orthodontic Appliances; Inventors: J. M. DeSimone and Robert E. Tricca
136. **European Patent 1694731 B1**; March 2012; "Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. a.; Yarbrough, J.; Van Dam, M.

137. **Chinese Patent CN1997691B**; July 2011; "Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. a.; Yarbrough, J.; Van Dam, M.
138. **Hong Kong Patent HK 1106262**; "Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. a.; Yarbrough, J.; Van Dam, M.
139. **Japanese Patent 4836779**; October 7, 2011; "Intraluminal Prostheses with Annealed Polymer Coating": Inventors: DeSimone, J. M.; Williams, M. S.
140. **US Patent 8,158,728**; April 17, 2012; "Methods and Materials for Fabricating Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Rothrock, Denison, G.; Resnick, P.
141. **Mexican Patent 295862**; February 9, 2012; "Methods for Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography"; DeSimone, J. M.; Rolland, Exener, A.; Samulski, E. T.; Samulski, R. J.; J. P. Maynor, B. W.; Euliss, L. E.; Rothrock Denison, G.; Gratton, Stephanie; Ermoshkin, Alex; Murphy, Andrew.
142. **US Patent 8,152,843**; Issued: April 10, 2012; "Polymeric endoprosthesis and method of manufacture"; Inventors: M. S. Williams, K. D. Holbrook, R. A. Glenn, J. A. Smith, J. M. DeSimone.
143. **Australian Patent 20006282042**; "Nanoparticle Fabrication Methods, Systems, and Materials.
144. **Chinese Patent CN101573802B**; August 2012; "High Fidelity Nano-structures and Arrays for Photovoltaics and Methods of Making the Same"; J. M. DeSimone, E. T. Samulski, G. D. Rothrock, M. Earl, Z. Zhou.
145. **US Patent 8,263,129**; September 11, 2012; "Methods for Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography"; DeSimone, J. M.; Rolland, Exener, A.; Samulski, E. T.; Samulski, R. J.; J. P. Maynor, B. W.; Euliss, L. E.; Rothrock Denison, G.; Gratton, Stephanie; Ermoshkin, Alex; Murphy, Andrew.
146. **US Patent 8,268,446**; September 18, 2012; "Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. A.; Yarbrough, J.; Van Dam, M.
147. **Japan Patent 5,162,578**; Issued: Dec. 21, 2012; "High Fidelity Nano-Structures and Arrays for Photovoltaics and Methods of Making the Same"; Inventors: J. M. DeSimone, G. Denison, M. Earl, E. T. Samulski, Z. Zhou.
148. **Mexican Patent 299945**; Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. A.; Yarbrough, J.; Van Dam, M.
149. **Canadian Patent 2,540,035**; Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. A.; Yarbrough, J.; Van Dam, M.
150. **US Patent 8,420,124**; April 16, 2013; "Methods for Fabricating Isolated Micro- and Nanostructures"; DeSimone, J. M.; Rolland, Exener, A.; Samulski, E. T.; Samulski, R. J.; J. P. Maynor, B. W.; Euliss, L. E.; Rothrock Denison, G.; Gratton, Stephanie; Ermoshkin, Alex; Murphy, Andrew.
151. **European Patent 1567090**; Issued: May 15, 2013; "Photo curable endoprosthesis"; Inventors: M. S. Williams, K. D. Holbrook, R. A. Glenn, J. A. Smith, J. M. DeSimone.
152. **US Patent 8,444,899**; May 21, 2013; "Methods and Materials for Fabricating Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Rothrock, G.; Resnick, P.
153. **US Patent 8,465,775**; June 18, 2013; "Nanoparticle Fabrication Methods, systems and materials for fabricating artificial red blood cells"; DeSimone, J. M.; Samulski, E. T.
154. **Korean Patent 10-1281775**; Methods of Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography

155. **Chinese Patent CN102016814 B**; Issued October 23, 2013; "Nanoparticle Fabrication Methods, Systems and Materials; Inventors: J. M. DeSimone, J. P. Rolland, A. Exner, E. Samulski, R. Samulski, B. Maynor, L. Euliss, G. Rothrock, S. Gratton, A. Ermoshkin, A. Murphy
156. **Canadian Patent 2,549,341**; Issued: October 11, 2013; Methods of Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography
157. **Canadian Patent 2,516,799**; Issued: April 8, 2014; "Intraluminal prostheses having polymeric material with selectively modified crystallinity and methods of making same"; Inventors: M. S. Williams, J. M. DeSimone
158. **US Patent 8,703,026**; Issued April 22, 2014; Method of Making Orthodontic Appliances; Inventors: J. M. DeSimone and R. E. Tricca
159. **Korean Patent 10-1376715**; March 14, 2014; Methods of Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography; Inventors: J. M. DeSimone, J. P. Rolland, A. E. Exner, E. T. Samulski, R. J. Samulski, B. W. Maynor, L. E. Euliss, G. M. Denison.
160. **US Patent 8,771,337**; July 8, 2014; "Endoprostheses and Methods of Manufacture"; Inventors: DeSimone, J. M.; Williams, M. S.
161. **Canadian Patent 2589691**; Issued: July 15, 2014; "Polymeric endoprostheses with modified erosion rates and methods of manufacture"; Inventors: M. S. Williams, J. M. DeSimone.
162. **Japanese Patent 5570721**; "Nanoparticle Fabrication Methods, systems and materials"; DeSimone, J. M.; Samulski, E. T.
163. **Indian Patent 261330**; Photocurable Perfluoropolyethers for Use as Novel Materials in Microfluidic Devices"; DeSimone, J. M.; Rolland, J. P.; Quake, S. R.; Schorzman, D. A.; Yarbrough, J.; Van Dam, M.
164. **European Patent 1601524**; Issued: Nov. 19, 2014; "Intraluminal prostheses with annealed polymer coating"; Inventors: M. S. Williams, J. M. DeSimone.
165. **Japanese Patent 5653942**; Issued: Nov. 28, 2014; "Interventional Drug Delivery System and Associated Methods"; Inventors: J. M. DeSimone, J. D. Byrne, M. E. Napier, M. Parrott, J. Pillai, L. Roush, J. J. Yeh.
166. **Japanese Patent 5656996**; Issued: Dec. 5, 2014; "Engineered Aerosol Particles, and Associated Methods"; Inventors: J. M. DeSimone, G. Denison-Rothrock, B. W. Maynor, J. P. Rolland, H. Zhang.
167. **US Patent 8,906,286**; Issued: Dec. 9, 2014; "Intraluminal prostheses having polymeric material with selectively modified crystallinity and methods of making same"; Inventors: J. M. DeSimone, M. S. Williams.
168. **Canadian Patent 2,549,341**; Methods of Fabricating Isolated Micro- and Nanostructures Using Soft or Imprint Lithography; Inventors: J. M. DeSimone, J. P. Rolland, A. E. Exner, E. T. Samulski, R. J. Samulski, B. W. Maynor, L. E. Euliss, G. M. Denison.
169. **US Patent 8,945,527**; Issued: Feb. 3, 2015; "Degradable compounds and methods of use thereof, particularly with particle replication in non-wetting templates"; Inventors: J. M. DeSimone, M. Parrott, A. Murphy, R. A. Petros.
170. **US Patent 8,992,992**; Issued: Mar. 31, 2015; "Methods for fabricating isolated micro- or nano-structures using soft or imprint lithography"; Inventors: J. M. DeSimone, J. P. Rolland, B. W. Maynor, L. E. Euliss, G. D. Rothrock, A. E. Dennis, E. T. Samulski, R. J. Samulski.
171. **US Patent 9,040,090**; Issued: May 26, 2015; "Isolated and fixed micro and nano structures and methods thereof"; Inventors: J. M. DeSimone, G. Denison-Rothrock, B. W. Maynor, J. P. Rolland
172. **US Patent 9,205,601**; Issued: Dec. 8, 2015; "Continuous liquid interphase printing"; J. M. Desimone, A. Ermoshkin, N. Ermoshkin., E. T. Samulski.

173. **US Patent 9,211,678**; Issued: Dec. 15, 2015; "Method and apparatus for three-dimensional fabrication"; Inventors: J. M. DeSimone, A. Ermoshkin, N. Ermoshkin., E. T. Samulski.
174. **US Patent 9,214,590**; Issued: Dec. 15, 2015; "High fidelity nano-structures and arrays for photovoltaics and methods of making the same"; Inventors: J. M. DeSimone, G. D. Rothrock, Z. Zhou, E. T. Samulski, M. Earl, S. Williams.
175. **US Patent 9,216,546**; Issued: Dec. 22, 2015; "Method and apparatus for three-dimensional fabrication with feed through carrier"; Inventors: J. M. Desimone, A. Ermoshkin, N. Ermoshkin., E. T. Samulski.
176. **German Patent DE 13847827 T1**; Issued: March 10, 2016; "Ion-conducting polymers and polymer blends for alkali metal-ion batteries"; Inventors: J. M. DeSimone, A. Pandya, D. H. C. Wong, A. Vitale.
177. **US Patent 9,360,757**; Issued: Jun 7, 2016; Continuous liquid interphase printing"; Inventors: J. M. Desimone, A. Ermoshkin, N. Ermoshkin., E. T. Samulski.
178. **Canadian Patent 2,847,260**; Issued: June 21, 2016; "Methods for fabricating isolated micro- and nano- structures using soft or imprint lithography"; Inventors: J. M. Desimone, J. P. Rolland, A. E. Exner, E. T. Samulski, R. J. Samulski, B. W. Maynor, L. E. Euliss, G. M. Denison.
179. **European Patent 2956822**; Issued: June 28, 2016; "Method and apparatus for three-dimensional fabrication with feed through carrier"; Inventors: J. M. Desimone, A. Ermoshkin, N. Ermoshkin., E. T. Samulski.
180. **European Patent 2956823**; Issued: June 29, 2016; "Continuous liquid interphase printing"; Inventors: J. M. Desimone, A. Ermoshkin, N. Ermoshkin., E. T. Samulski.
181. **US Patent 9,381,158**; Issued: July 5, 2016; "Nanoparticle fabrication methods, systems, and materials for fabricating artificial red blood cells"; Inventors: J. M. DeSimone, E. T. Samulski.
182. **Canadian Patent 2611985**; Issued: Aug. 16, 2016; "Nanoparticle fabrication methods, systems, and materials"; Inventors: J. M. Desimone, J. P. Rolland, A. E. Dennis, E. T. Samulski, R. J. Samulski, B. W. Maynor, L. E. Euliss, G. Rothrock-Denison, S. Gratton, A. Ermoshkin, A. J. Murphy,
183. **US Patent 9,453,142**; Issued: Sept. 27, 2016; "Polyurethane resins having multiple mechanisms of hardening for use in producing three-dimensional objects"; Inventors: J. P. Rolland, K. Chen, J. Poelma, J. Goodrich, R. Pinschmidt, J. M. DeSimone, L. Robeson.
184. **US Patent 9,457,098**; Issued: October 4, 2016; "Asymmetric bifunctional silyl monomers and particles thereof as prodrugs and delivery vehicles for pharmaceutical, chemical and biological agents"; Inventors: J. M. DeSimone, M. Finniss, M. Napier, A. Pandya, M. Parrott.
185. **US Patent 9,498,920**; Issued: Nov. 22., 2016; "Method and apparatus for three-dimensional fabrication"; J. M. DeSimone, A. Ermoshkin, E. T. Samulski.
186. **Australian Patent 2010217957**; Issued: Nov. 26, 2016; "Interventional Drug Delivery System and Associated Methods"; Inventors: J. M. DeSimone, J. D. Byrne, M. E. Napier, M. Parrott, J. Pillai, L. Roush, J. J. Yeh.
187. **European Patent 1704585**; Issued: Mar. 15, 2017; "Methods for fabricating isolated micro- and nano- structures using soft or imprint lithography"; J. M. Desimone, J. P. Rolland, A. E. Exner, E. T. Samulski, R. J. Samulski, B. W. Maynor, L. E. Euliss, G. M. Denison.
188. **US Patent 9,598,606**; Issued: Mar. 21, 2017; "Methods of producing polyurethane three-dimensional objects from materials having multiple mechanisms of hardening"; J. P. Rolland, K. Chen, J. Poelma, J. Goodrich, R. Pinschmidt, J. M. DeSimone, L. M. Robeson.
189. **US Patent 9,676,963**; Issued: June 13, 2017; "Methods of producing three-dimensional objects from materials having multiple mechanisms of hardening"; J. P. Rolland, K. Chen, J. Poelma, J. Goodrich, R. Pinschmidt, J. M. DeSimone, L. M. Robeson.

190. **US Patent 9,724,305**; Issued: Aug. 8, 2017; "Nanoparticle fabrication methods, systems, and materials for fabricating artificial red blood cells"; J. M. DeSimone, E. T. Samulski.
191. **US Patent 9,748,604**; Issued: Aug. 29, 2017; "Ion conducting polymers and polymer blends for alkali metal ion batteries"; J. M. DeSimone, A. Pandya, D. H. C. Wong, A. Vitale.
192. **US Patent 9,755,273**; Issued: Sept. 5, 2017; "Ion conducting fluoropolymer carbonates for alkali metal ion batteries"; J. M. DeSimone, A. Pandya, D. H. C. Wong, N. P. Balsara, J. Thelen, D. Devaux.
193. **US Patent 9,877,920**; Issued: Jan. 30, 2018; "Methods for fabricating isolated micro-or nano-structures using soft or imprint lithography"; J. M. DeSimone, J. P. Rolland, B. W. Maynor, L. E. Euliss, G. D. Rothrock, A. E. Dennis, E. T. Samulski, R. J. Samulski.
194. **US Patent 9,902,818**; Issued: Feb. 27, 2018; "Isolated and fixed micro and nano structures and methods thereof"; J. M. DeSimone, G. D. Rothrock, B. W. Maynor, J. P. Rolland.
195. **US Patent 9,975,295**; Issued: May 5, 2018; "Acceleration of stereolithography"; J. P. Rolland, J. M. DeSimone.
196. **US Patent 9,982,164**; Issued: May 29, 2018; "Polyurea resins having multiple mechanisms of hardening for use in producing three-dimensional objects"; J. P. Rolland, K. Chen, J. Poelma, J. Goodrich, R. Pinschmidt, J. M. DeSimone, L. M. Robeson.
197. **US Patent 9,993,974**; Issued: June 12, 2018; "Method and apparatus for three-dimensional fabrication"; J. M. DeSimone, A. Ermoshkin, E. T. Samulski.

Current Research Group (2019)

<u>Name</u>	<u>Position</u>	<u>Previous Institution</u>
Dunn, Stuart	Postdoctoral Scholar	Harvard Univ.
Iliadis, Kimon	Laboratory Assistant	UNC-CH
Mecham, Sue	Research Associate	Virginia Tech
Perry, Jillian	Research Associate	Univ. of Florida; Postdoc at UNC
Pinschmidt, Bob	Research Associate	UNC-CH
Tessema, Addis	Postdoctoral Scholar	Univ. of South Carolina
Tian, Shaomin	Research Assistant Professor	UNC-CH Microbiology
Tysinger, Matt	Laboratory Technician	Quality Chemical Laboratories / UNC
Wang, Ying	Postdoctoral Scholar	UNC-CH
Zhang, Rui	Postdoctoral Scholar	Virginia Tech.

Past Group Members and Visitors (* denotes people currently in academic positions)

- 75 Postdocs
- 58 Ph.D. Degrees in Chemistry
- 9 Ph.D. Degrees in Pharmaceutical Sciences
- 1 Ph.D. Degree in Biomedical Engineering
- 1 Ph.D. Degree in Microbiology & Immunology
- 13 Ph.D. Degrees in Chemical Engineering
- 13 M.S. Degrees in Chemistry
- 1 M.S. Degree in Chemical Engineering
- 25 B.S. Chemistry

A) Past Ph.D. Graduates

*Ashby, Valerie

Thesis: Synthesis and characterization of thiophene-based high performance polymers

Graduated **1994**

*Guan, Zhibin

Thesis: Homogeneous free radical polymerizations in supercritical carbon dioxide

Graduated: **1994**

Peters, Mark

Thesis: Molecular engineering of well-defined heterophase materials

Graduated: **1994**

Hunt, Michael

Thesis: Studies on the end-functionalization of living anionic polymerization

Graduated: **1995**

Maury, Elise

Thesis: Heterogeneous free radical polymerizations in supercritical carbon dioxide

Graduated: **1995**

Tahiliani, Shonali

Thesis: Living alternating copolymerizations of styrenic monomers and carbon monoxide using a Pd(II) catalyst

Graduated: **1995**

Dukes, Katerina

Thesis : Reactivity and dynamics of spin-polarized radical pairs

Graduated: **1996**

Mistele, Chad

Thesis: Metathesis and oxidative coupling polymerizations in carbon dioxide

Graduated: **1996**

*Canelas, Dorian

Thesis: Dispersion polymerization of vinyl monomers using nonionic surfactants in liquid and supercritical CO₂

Graduated: **1997**

Clark, Michael

Thesis: Studies of cationic processes in carbon dioxide

Graduated: **1997**

Kassis, Camille

Thesis: Surface and mass spectral analysis of polymeric materials utilizing XPS and MALDI

Graduated: **1997**

*Romack, Tim

Thesis: Polymerization of fluoro-olefins in liquid and supercritical carbon dioxide

Graduated: **1997**

Tanner, Martha

Thesis: Mechanistic studies of Co(III)-catalyzed reactions: Living polymerization of ethylene

Graduated: **1997**

Betts, Douglas

Thesis: The synthesis, characterization, and application of CO₂-soluble, non-ionic amphiphilic block copolymers

Graduated: **1998**

Kipp, Brian

Thesis: The synthesis of fluoropolymers in carbon dioxide and carbon dioxide/aqueous systems

Graduated: **1998**

Phillips, Rich

Thesis: The synthesis of poly(arylene)s via nickel(0)-catalysis: Homopolymers and copolymers

Graduated: **1998**

Maxwell, Kim

Thesis: Antenna polymer mimics for energy and electron transfer processes in photosynthesis

Graduated: **1999**

Bunyard, Clay

Thesis: Novel methods for synthesis of perfluoropolyethers

Graduated: **2000**

Carson, Terri

Thesis: The preparation of fluorinated and water-soluble materials via heterogeneous polymerizations in CO₂

Graduated: **2000**

* Gross, Stephen

Thesis: Step-growth polymerizations facilitated by scCO₂: The synthesis of poly(bisphenol A carbonate)

Graduated: **2000**

McClain, Jim

Thesis: Characterization of polymers and amphiphiles in liquid and supercritical carbon dioxide

Graduated: **2000**

Royer, Joseph

Thesis: Supercritical fluid assisted polymer processing: Plasticization, swelling and rheology

Graduated: **2000**

Wells-Kennedy, Sharon

Thesis: The study of amphiphilic block copolymers in selective solvents

Graduated: **2000**

Crette, Stephanie

Thesis: Solid supports for catalysis and separation processes in compressed carbon dioxide

Graduated: **2001**

Shultz, Scott

Thesis: Mechanistic investigations of Ni(II) and Pd(II) catalyzed copolymerization of carbon monoxide & olefins

Graduated: **2001**

Erford, Karen (McAllister)

Thesis : Polymeric nanogels produced via inverse micromulsion polymerization for gene and antisense delivery

Graduated: **2002**

Flowers, Devin

Thesis: Designing photoresist systems for dry microlithography in carbon dioxide

Graduated: **2002**

Hoggan, Eric

Thesis: Spin coating and photolithography using liquid and supercritical carbon dioxide

Graduated: **2002**

Ye, Weijun

Thesis: Well-defined sugar-containing amphiphiles & application to heterogeneous polymerizations in scCO₂

Graduated: **2002**

Folk, Sarah

Thesis: Fluorinated and siloxane-based homopolymers and surfactants: Characterization of interactions and aggregation by scattering techniques in compressed carbon dioxide

Graduated: **2003**

Kennedy, Karen

Thesis: Characterization of phase equilibrium associated with heterogeneous polymerizations in scCO₂

Graduated: **2003**

Novick, Brian

Thesis: Free meniscus coating using compressed carbon dioxide

Graduated: **2003**

Behles, Jacqueline

Thesis: Synthesis of hollow core-shell polymer particles and the synthesis of phosphate fluorosurfactants for use in carbon dioxide

Graduated: **2004**

Jones, Charles

Thesis: Etching of silicon dioxide thin films and synthesis of novolac resins in supercritical carbon dioxide

Graduated: **2004**

Visintin, Pamela

Thesis: Slurry design towards a "dry" carbon dioxide-based copper chemical mechanical planarization process for device fabrication

Graduated: **2004**

Xu, Bin

Thesis: High pressure nuclear magnetic resonance studies of self-assembly structures formed with phosphorous fluorosurfactants in liquid/supercritical carbon dioxide

Graduated: **2004**

Young, Jennifer

Thesis: Composite polymer particles in supercritical carbon dioxide: Synthesis and characterization

Graduated: **2004**

Zannoni, Luke

Thesis: Fluoroolefin copolymerizations in scCO₂ towards the development of a 157 nm photoresist

Graduated: **2004**

Astrum-Acevedo, Jim

Thesis: Synthesis and characterization of linear AB diblock copolymeric styrenic-based energy conducting polymers with pendant ruthenium (II) trisbipyridyl chromophores

Graduated: **2005**

Denison, Ginger

Thesis: Carbon dioxide based etchant solutions for copper chemical mechanical planarization

Graduated: **2005**

Kim Jaehoon

Thesis: Deposition of thin organic and metal films from carbon dioxide by free meniscus and solvent displacement methods

Graduated: **2005**

Liu, Tao

Thesis: Continuous precipitation polymerization of acrylic acid in supercritical carbon dioxide

Graduated: **2005**

Rolland, Jason

Thesis: Functional perfluoropolyethers for novel applications

Graduated: **2005**

Boggiano, Mary Kate

Thesis: Addition polymerization toward the synthesis of photoresists for microlithography with CO₂ development

Graduated: **2006**

Guo, Ji

Thesis: Design chemistry for the environment: From processing fluoropolymers in supercritical carbon dioxide to new nonbiopersistent fluorinated coating materials

Graduated: **2006**

Zhou, Zhilian

Thesis: Novel polymer electrolyte membranes for fuel cell applications

Graduated: **2006**

Ahmed, Tamer

Thesis: Copolymerization of vinylidene Fluoride with Hexafluoropropylene in supercritical carbon dioxide

Graduated: **2007**

Gratton, Stephanie

Thesis: In vitro and in vivo studies of nanomolded PRINT particles of precisely controlled size, shape, and surface chemistry

Graduated: **2008**

Kelly, Jennifer

Thesis: Novel fluoroelastomers composed of tetrafluoroethylene and vinylidene fluoride oligomers synthesized in carbon dioxide for use in soft lithography to enable a platform for the fabrication of shape- and size-specific, monodisperse biomaterials.

Graduated: **2008**

Herlihy, Kevin

Thesis: Shape and size specific: Fabrication, characterization, and application of highly tailored biocompatible hydrogel particles for use in materials and biomedical settings

Graduated: **2009**

Hu, Zhaokang

Thesis: Novel perfluoropolyethers as fouling-release coatings

Graduated: **2009**

Enlow, Elizabeth

Thesis : Engineering PLGA particles for advanced drug delivery

Graduated: **2010**

Hampton, Meredith

Thesis: Nano-patterning of inorganic materials for photovoltaic applications

Graduated: **2010**

Nunes, Janine

Thesis: Controlled manipulation of engineered colloidal particles

Graduated: **2010**

Williams, Stuart

Thesis: Nanopatterning with PFPE elastomers: Materials and photovoltaic applications

Graduated: **2010**

Yadav, Rameshwar

Thesis: Chemically crosslinked polymer electrolyte membranes from fluorinated liquid precursors for application in fuel cells

Graduated: 2010

Merkel, Timothy

Thesis: Biologically Inspired PRINT particles: Design, Fabrication, in vitro and in vivo evaluations of extremely soft particles

Graduated: **2011**

Brosnan, Sarah

Thesis: Development of novel polyesters as unique biomaterials

Graduated: **2012**

McGowan, Chang, Kelly

Thesis: Targeted PRINT nanoparticles for effective cancer therapy

Graduated: **2012**

Dunn, Stuart

Thesis: Shape-specific hydrogel nanoparticles with defined composition & surface properties for gene silencing

Graduated: **2012**

Xu, Jing

Thesis: Precisely engineered protein-based PRINT particles for delivery of nucleic acids

Graduated: **2012**

Roberts, Reid

Thesis: Harnessing what lies within: Programming immunity with biocompatible devices to treat human disease

Graduated: **2013**

Chu, Kevin

Thesis: PRINT nanoparticle parameters to improve docetaxel PK/PD

Graduated: **2013**

Chen, Kai

Thesis: A biomimetic approach toward red blood cell substitutes based on PRINT hydrogels

Graduated: **2013**

Khodabandehlou, Khosrow

Thesis: Slowly-dissolving aqueous suspensions of functionalized protein antibody PRINT particles for therapeutic applications

Graduated: **2014**

Roode, Luke

Thesis: Sub-tumor distribution of PRINT nanoparticles and its application for nucleic acid delivery

Graduated: **2014**

Byrne, James

Thesis: Iontophoretic delivery of cytotoxic agents for the treatment of solid tumors

Graduated: **2014**

Kai, Marc P.

Thesis: Development and applications of a cisplatin-containing hydrogel nanoparticle

Graduated: **2014**

*Fromen, Catherine A.

Thesis: Monodisperse, uniformly-shaped particles for controlled respiratory vaccine delivery

Graduated: **2014**

Mueller, Sarah

Thesis: Polymeric PRINT hydrogel nanoparticles as a delivery platform for subunit vaccine antigens and adjuvants

Graduated: **2014**

Shen, Tammy

Thesis: Development and characterization of PRINT particles as drug delivery vehicles in the lung

Graduated: **2014**

Reuter, Kevin

Thesis: PRINT nanoparticle parameters to improve docetaxel PK/PD

Graduated: **2015**

Wong, Dominica H. C.

Thesis: Perfluoropolyether-based electrolytes for lithium battery applications

Graduated: **2015**

*Moga, Katherine A.

Thesis: Rapidly dissolvable PRINT microneedles for the transdermal delivery of therapeutics

Graduated: **2015**

Johnson, Ashley R.

Thesis: Continuous Liquid Interface Production of Microneedles for Transdermal Drug Delivery

Graduated: **2016**

Kapadia, Chintan. H.

Thesis: Engineering PRINT Nanoparticle Subunit Vaccine to Induce Antitumor Immune Response

Graduated: **2016**

*Rahhal, Tojan. B.

Thesis: Engineering PRINT Particles for Pulmonary Delivery of Therapeutics

Graduated: **2016**

Bloomquist, Cameron

Thesis: Continuous Liquid Interface Production of Medical Devices for Drug Delivery and Cancer Therapy

Graduated: **2017**

Caudill, Cassie

Thesis: Engineering Microneedles for the Transdermal Delivery of Therapeutics

Graduated: **2017**

Coffman, Jason

Thesis: Engineering Antigen Display for a PRINT Particulate Dengue Subunit Vaccine Platform
Graduated: **2017**

Olson, Kevin
Thesis: Nonflammable Perfluoropolyether Electrolytes for Safer Lithium-Based Batteries
Graduated: **2017**

Quintanilla, Adam
Thesis: Fundamentals of Particulate-Filled Polymer Composite via Continuous Liquid Interface Production
Graduated: **2017**

Wilson, Erin
Thesis: Developing PRINT Dry Powders for Pulmonary Protein Delivery
Graduated: **2017**

Januszewicz, Rima
Thesis: Continuous Liquid Interface Production (CLIP) for the Fabrication of Porous Architected Structures
Graduated: **2018**

B) Past M.S. Graduates

Givens, Ramone
Thesis: Step-growth polymerization in supercritical fluids
Graduated: **1997**

Jones, Tamara
Thesis: Synthesis for low dielectric solvents
Graduated: **1997**

Burke, Amy
Thesis: Step-growth polymerizations using supercritical carbon dioxide
Graduated: **1998**

Burns, Sonja
Thesis: Non-thesis
Graduated: **1999**

Saraf Manish
Thesis: Polymerization of vinylidene fluoride in supercritical carbon dioxide: Molecular weight distribution
Graduated: **2001**

Polley, Jennifer
Thesis: The carbon dioxide technology platform: From surfactants to microelectronics
Graduated: **2002**

Hicks, Randall, Evan
Thesis: Synthesis of Tetrafluoroethylene tetrapolymers in supercritical carbon dioxide
Graduated: **2003**

Exener, Ansley

Thesis: Experiments utilizing the new nanofabrication method PRINT

Graduated: **2005**

Traud, Ron

Thesis: Proton exchange membranes improved mechanical properties and direct membrane fabrication

Graduated: **2008**

Gao, Xin

Thesis: RNA-based drug delivery using PRINT nanoparticles

Graduated: **2009**

Hinson, William

Thesis: In vitro and in vivo studies of biodegradable thermoplastic PRINT particles of controlled size, shape, and formulation

Graduated: **2010**

Forman, Nicole

Thesis: PRINT particles for inhaled therapies

Graduated: **2011**

Fain, John

Thesis: PRINT nanoparticle design and fabrication for imaging application & delivery of antibiotic payloads

Graduated: **2012**

Mooney, Heather Joy

Thesis: Development of a PRINT nanoparticle platform for use in vaccine applications

Graduated: **2013**

C) Past Undergraduate Researchers

<u>Name</u>	<u>Position w/ DeSimone</u>	<u>Next Location</u>
Anderson, Chris	B.S. Chemistry	Caltech
Archuleta, Christine	B.S. Chemistry	World Pediatric Project
Askew, Kim	B.S. Chemistry	Medical School
Bhattacharya, Arjun	B.S. Math. Decision Sci./ Bio.	Graduate School
Batten, Heather	B.S. Chemistry	University of Massachusetts - Amherst
Berndt, Steve	B.S. Chemistry	NC Molding Company
Bertrand, Elizabeth	B.S. Chemistry	University of Montpellier
Brooks, Ryan	B.S. Exercise & Sport Sci.	Graduate School
Bulgin, Andrew	B.S. Chemistry	Medical School
Butcher, Eric	B.S. Pharmacy	Pharmacy School
Cangelosi, Michael	B.S. in Applied Sciences	Unknown
Detter, Matthew	B.S. Chemistry; Research Asst.	Duke University (MD/PhD program)
Dunn, Erin	B.S. Chemistry	Graduate School

Fakhouri, Sami	B.S. Chemistry	UMass – Polymer Science
Flannery, Tommy	B.A. Global Studies/ Chem. minor	Weill Cornell Medical College
Genova, Jennifer	B.S. Chemistry	Medical School
Glover, Rebecca	B.A. Chemistry	Dental School
Harbinson, Chris	B.S. Chemistry	Micell Technologies
Haynie, Mindy	B.S. Chemistry	Micell Technologies
Karkanawi, Sarah	B.S. Pharmacy	Pharmacy School
Killian, Susan	B.S. Chemistry	Northwestern University
King, Tiffany	B.S. Chemistry/ Mathematics	Univ. of Chicago (Dept. of Biochem. & Molec. Bio.)
Lee, William	B.S. Chem./ B.A. Economics	GSK
Lizotte, Jeremy	B.S. Chemistry	Virginia Tech
Marshall, Kelly	B.S. Chemistry	University of California - Berkeley
Mofrad, Peter	B.S. Chemistry	Medical School
Orgel, Ryan	B.S. Chemistry	Wake Forest University Medical School
Paradzinsky, Mark	B.S. Chemistry	Virginia Tech (for Ph.D.)
Pickens, Andrew	B.S. Biochemistry	Medical School
Pollitis, Jeffery	B.S. Chemistry	University of Michigan
Portnow, Lauren	B.S. Chemistry	UNC-CH School of Medicine
Sailer, David	B.S. Biochemistry	UNC-CH Research Assistant & Lab Mgr
Seus, Allison	B.A. Chemistry	Graduate School
Short, Patrick	B.S. Applied Math./ Quant. Bio.	Univ. of Cambridge Ph.D. program
Snead, David	B.S. Chemistry	Graduate School
Smith, Renee	B.S. Chemistry	MIT Graduate School
Stranko, Matt	B.S. Chemistry	Medical School
Sullivan, David	B.S. Chemistry	Graduate School
Thompson, Drew	B.S. Chemistry	University of California – Berkeley
Trecek, John	B.S. Chemistry	Medical School
Weston, Ken	B.S. Chemistry	University of California – Santa Barbara
White, Jesse	B.S. Chemistry	Architecture School

D) Past Postdoctoral Researchers and Staff

<u>Name</u>	<u>Position w/ DeSimone</u>	<u>Next Location</u>
Andre, Pascal	Postdoc	Industry in France
Archibald, Scott	Postdoc	UniRoyal
Barliya, Tilda	Postdoc	Rabin Medical Center
Bessel, Carol	Sabbatical Leave	Villanova
Byrne, James	Postdoc (after Ph.D.)	UNC (M.D.); Harvard Radiation Oncology (residency)
*Bickford, Lissett	Postdoc	Asst. Prof. VA Tech
Blake, Steven	Postdoc	Postdoc at MIT
Bowerman	Postdoc; Research Assoc.	Moderna Therapeutics
Brannen, Candice	Postdoc	Lord Corporation
Buhler, Eric	Postdoc	CNRS – Grenoble, France
Caudill, Cassie	Postdoc (after Ph.D.)	Vaxess Technologies
Cha, Junho	Postdoc	University of Singapore

Chernyak, Yuri	Postdoc NCSU	Huntsman Chemical Company, RTI
* Charpentier, Paul	Postdoc NCSU	Univ. of Western Ontario
Cheung, Roland	Postdoc	Octopus (Netherlands)
* Choi, Jai-Pil	Postdoc	Professor, California State University, Fresno
Combes, Jimmy	Postdoc	Xerox Research Centre of Canada
Conwell, Christine	Postdoc	Consulting
* Cooper, Andy	Postdoc	Cambridge University, Liverpool
Dardin, Alex	Postdoc	RohMax
* Davidson, Tammy	Postdoc	Middle Tennessee State
Dessipri, Geni	Postdoc	ARI - Greece
DeYoung, James	Postdoc	Micell Technologies
Dominey, Raymond	Sabbatical Leave	University of Richmond
Du, Libin	Postdoc	Lubrizol
DuPont, Julie	Postdoc	Organic Synthesis Company
Elsesser, Mark	Postdoc	Science Policy Fellow, State of CA
Ermoshkin, Alexander	Postdoc	Liquidia Technologies
Ertas, Merve	Postdoc	Wright-Patterson AFRL
Eulis, Larken	Postdoc	Postdoc, Department of Radiology, UNC-CH
Finniss, Mathew	Research Assistant	Dalhousie University (Medical School)
Galloway, Ashley	Postdoc	Liquidia Technologies
Gavrilov, Kseniya	Postdoc	Triangle Insights Group
Goodner, Mike	Postdoc	Intel
Gullapalli, Anuradha	Research Specialist	Return to India
Guo, Ji	Postdoc	FDA
Haithcock, Vicki	Administrative Manager	Retired
Hasan, Warefta	Postdoc	AuraSense Therapeutics
Herman, Delores	Postdoc	Duke Law School
Huang, Lihong	Research Associate	South Carolina
Hsiao, Yu-Ling	Postdoc	Bayer
Jeong, Wonhee	Postdoc	LG (Korea)
Jikei, Mishi	Postdoc	Tokyo Institute of Technology
* Kadla, John	Visiting Scientist	NC State University
Kapellen, Kerstin	Postdoc	4P – Germany
Keiper, Jason	Postdoc	Stepan
Kendall, Jonathan	Postdoc	Lord Corporation
Kersey, Farrell	Postdoc	UNC-CH
*Lee, Dongil	Postdoc (Joint with Murray)	Asst. Professor, Western Michigan University
Lemert, Rich	Postdoc	Consultant
Lin, Jun	Postdoc	Consultant
Luft, Chris	Senior Research Associate	Liquidia / Premirr Plastics
* Ma, Da	Postdoc	Fudan University
Maier, Gerhard	Postdoc	Technische Universitat Muenchen
Maynor, Ben	Postdoc	Liquidia Technologies
* Menciloglu, Yusuf	Postdoc	Gemsan - Turkey
Michel, Udo	Postdoc	Degussa Stockhausen
* Min, Yuanzeng	Postdoc	Professor, U. of Science & Technology, China
Murphy, Andrew	Postdoc	Liquidia Technologies
Napier, Mary	Research Assoc. Prof./Proj. Mgr.	Exec. Dir., Kenan Inst. of Private Enterprise (UNC)

Nebipasagil, Ali	Postdoc	Formlabs
Ni, Yizeng	Postdoc	Supelco
O'Neill, Adrian	Postdoc	Quintiles
Paisner, Sara	Postdoc	GE Plastics
Pandya, Ashish	Lab Mgr. and Sr. Res. Ass.	Science House
* Parrott, Matthew	Postdoc	Assistant Prof., UNC SOM, Dept. of Radiology
* Petros, Rob	Postdoc	University of North Texas
Pillai, Jonathan	Postdoc	Stanford-India Biodesign Fellowship
Pohlhaus, Patrick	Postdoc	Liquidia
Poppe, Dirk	Postdoc	Industry in Germany
Powell, Kim	Postdoc	Savannah River
Quadir, Murat	Postdoc/Lab Manager	Nalco
Robbins, Greg	Research Associate	Carbon, Inc.
Savage, John	Postdoc	Liquidia
Schorzman, Derek	Postdoc	Bausch and Lomb
* Shaffer, Katherine	Postdoc	Wayne State College
Shi, Chunmei	NCSU Postdoc	NCSU Postdoc w/ Roberts
Shiho, Hiroshi	Visiting Scientist	JSR Corporation
Stewart, Gina	Postdoc	Micell Technologies, Consultant
* Taylor, Darlene	STC Tech. Coordinator	Assist. Prof. NC Central University
Wang, Danni	Postdoc	Supelco
Wang, Jie-Yu	Postdoc	Beijing University
* Wang, Jin	Postdoc	Assist. Prof. Baylor College of Medicine
Wang, Ke	Postdoc (w/ Carbonell)	Guidant Corporation
* Wang, Yapei	Postdoc	Professor, Renmin University
Wei, Han-Chao	Postdoc	Exfluor Incorporated
Wojcinski, Lou	Postdoc	Postdoc, Univ. of Kentucky
Wood, Colin	Postdoc	Researcher at University of Liverpool
Yarbrough, Jason	Postdoc	Sealed Air Corporation
* Yi, Xianwen	Research Associate	UNC (Research Asst. Prof.)
* Yoshida, Eri	Postdoc	Assistant Professor – Kyoto University
Zhang, Hanjun (Henry)	Postdoc	Postdoc at LBNL