

Curriculum Vitae

Barbara E. Wyslouzil

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William G Lowrie Department of Chemical and Biochemical Engineering
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Education

1992 PhD, Chemical Engineering (minor: Applied Physics), Caltech, Pasadena, California
Thesis: Aspects of Homogeneous Nucleation
Advisor: John H. Seinfeld

1985 MSc, Chemical Engineering, University of Alberta, Edmonton, Alberta
Thesis: Pipeline Transportation of Heavy Crude Oil-in-Water Emulsions
Advisor: Jacob H. Masliyah

1980 BSc (Honours), Mathematics and Engineering, Queens University, Kingston, Ontario

Professional experience

2007 –	Professor, Department of Chemistry and Biochemistry, OSU, Columbus OH
2005 –	Professor, CBE, The Ohio State University, Columbus OH
2003 – 2005	Associate Professor, The Ohio State University, Columbus OH
1998 – 2003	Associate Professor, Worcester Polytechnic Institute, Worcester MA
1993 – 1998	Assistant Professor, Worcester Polytechnic Institute, Worcester MA
1991 – 1993	Principal Scientist, Physical Sciences Inc., Andover, MA
1987 – 1991	Research Assistant, Teaching Assistant, Chemical Engineering California Institute of Technology, Pasadena, CA
Jun-Sept/1987	Research Engineer, D.B. Robinson and Associates, Edmonton, Alberta
1981 – 1987	Research Officer, Alberta Research Council, Edmonton, Alberta

Research Interests

Nucleation, nanodroplet structure, small angle neutron and x-ray scattering from aerosols,
biomedical applications of aerosol science

Honors, Awards, and Recognitions

Fellow, American Association for Aerosol Research, 2018
College of Engineering Lumley Research Award, 2009
Kenneth T. Whitby Award for Outstanding Contributions to Aerosol Science and Technology by
a Beginning Scientist, American Association for Aerosol Research, 2002
WPI Trustees Award for Outstanding Research and Creative Scholarship, 2001
Member Sigma Xi (Elected 2001)
Japan Society for the Promotion of Science Fellowship, 1996

National Science Foundation Career Development Award, 1995
Natural Sciences and Engineering Research Council Post-Doctoral Fellowship, 1991 (declined)
Alberta Heritage Foundation Wilfred R. May Scholarship for Career Development, 1989 – 1991
Natural Sciences and Engineering Research Council Postgraduate Fellowship, 1982 – 1984
Natural Sciences and Engineering Research Council Undergraduate Student Research Award,
1980
Falconbridge Ltd. Scholarship, 1976 – 1980
Queens University Entrance Scholarship, 1976

Professional Organization Activities

American Association of Aerosol Research, Member
Member of the long range planning committee, 2014 – present
Member Endowment Committee, 2014-2017
President 2013-2014
Vice President 2012-2013
Vice President Elect 2011-2012
Secretary, 2001–2003
Board Member, 2000–2001
Served on the technical program committee for the AAAR Annual meeting 1997, 2002,
2003
Organized the aerosol physics sessions for the Annual meetings 2002, 2003
Member Aerosol Physics working group
American Chemical Society, Member
Organized the Nucleation Symposium held in conjunction with the 77th, 80th and 85th
Colloid and Surface Science Meeting
American Institute of Chemical Engineers, Member
Session Co-Chair at several Annual Meetings
Neutron Scattering Society of America, Member
Member of the Organizational Committee for the NSF sponsored workshop: “Sample
Environments for Neutron Scattering” held in September 2003 in Tallahassee, Fl.
Member of the Technical Committee for the 16th International Conference on Nucleation and
Atmospheric Aerosols, held July 2004, Kyoto Japan and 17th International Conference on
Nucleation and Atmospheric Aerosols, held August 2007, Galway Ireland

Refereed Papers

- [1] Wyslouzil, B.E., Kessick, M.A. and Masliyah, J.H., 1987, *Pipeline Flow Behaviour of Heavy Crude Oil Emulsions*, Can. J. of Chem. Eng., **65**, 353.
- [2] Wyslouzil, B.E., Seinfeld, J.H., Flagan, R.C and Okuyama, K., 1991, *Binary Nucleation of Acid-Water Systems: I. Methanesulfonic Acid -Water (MSA-H₂O)*, J. Chem. Phys.,**94**, 6827.
- [3] Wyslouzil, B.E., Seinfeld, J.H., Flagan, R.C. and Okuyama, K., 1991, *Binary Nucleation of Acid-Water Systems: II. Sulfuric Acid-Water and Comparisons with MSA-H₂O*, J. Chem. Phys., **94**, 6842.
- [4] Wyslouzil, B.E. and Seinfeld, J.H., 1992, *Nonisothermal Homogeneous Nucleation*, J. Chem. Phys., **97**, 2661.
- [5] Srinivasachar, S., Morency, J.R., and Wyslouzil, B.E., 1992, *Heavy Metal Transformations and Capture During Incineration*, paper No. **92-41.07**, presented at The 85th Annual

Meeting of the Air and Waste Management Association, June 21-26, Kansas City, MO

- [6] Wyslouzil, B.E., Srinivasachar, S. and Morency, J., 1992, *Transformation and Capture of Inorganic Lead Compounds During Incineration*, ASME paper No. 92-JPGC-FACT-21, presented at The International Power Generation Conference, October 18-22, Atlanta, GA
- [7] Shinagawa, H., Hamada, T., Okuyama, K., and Wyslouzil, B.E., 1994, *A Theoretical Evaluation of Liquid Condensate Formation by Heterogeneous Nucleation from a Benzene and Cyclohexane Vapor Mixture*, J. Chem. Eng. Japan, **27**, 249.
- [8] Shinagawa, H., Miyamoto, K., Hamada, T., Okuyama, K., and Wyslouzil, B.E., 1994, *Determining the Phase Transition of Condensate formed by Heterogeneous Nucleation of Condensable Vapors onto a Cold Substrate*, J. Chem. Eng. Japan, **27**, 284.
- [9] Wyslouzil, B.E., Wilemski, G., Heals, M.G., and Frish, M., 1994, *Effect of Carrier Gas Pressure on Condensation in a Supersonic Nozzle*, Phys. Fluids, **6**, 2845.
- [10] Wyslouzil, B.E., Sonnenfroh, D., Carleton, K., Rawlins, W.T., and Arnold, S., 1994, *Observation of Hydration of Single, Modified Carbon Aerosols*, Geophys. Res. Lett., **21**, 2107.
- [11] Wilemski, G. and Wyslouzil, B.E., 1995, *Binary Nucleation Kinetics. I. Self-Consistent Size Distribution*, J. Chem. Phys., **103**, 1127.
- [12] Wyslouzil, B.E. and Wilemski, G., 1995, *Binary Nucleation Kinetics. II. Numerical Solution of the Birth-Death Equations*, J. Chem. Phys., **103**, 1137.
- [13] Shinagawa, H., Miyamoto, K., Okuyama, K., and Wyslouzil, B.E., 1995, *Simulation of a Transient Heterogeneous Phase Transition*, J. Chem. Eng. Japan, **28**, 456.
- [14] Wyslouzil, B.E., and Wilemski, G., 1996, *Binary Nucleation Kinetics. III. Transient Behavior and Timelags*, J. Chem. Phys., **105**, 1090.
- [15] Carleton, K.L., Sonnenfroh, D.M., Rawlins, W.T., Wyslouzil, B.E., and Arnold, S., 1997, *Freezing Behavior of Single Sulfuric Acid Aerosols Suspended in a Quadrupole Trap*, J. Geophys. Res., **102**, 6025.
- [16] Wyslouzil, B.E., Whipple, M., Chatterjee, C., Walcerz, D.H., Weathers, P.J., and Hart, D.P., 1997, *Mist deposition onto hairy root cultures. Aerosol modeling and experiments.*, Biotechnology Progress, **13**, 185.
- [17] Chatterjee, C., Correll, M., Weathers, P.J., Wyslouzil, B.E. and Walcerz, D.B., 1997, *A simplified acoustic window mist bioreactor.*, Biotechnology Techniques, **11**, 155.
- [18] Wyslouzil, B.E., Cheung, J.L., Wilemski, G., and Strey, R., 1997, *Small Angle Neutron Scattering from Nanodroplet Aerosols.*, Phys. Rev. Letters, **79**, 431.
- [19] B.E. Wyslouzil and G. Wilemski, 1999, *Binary Nucleation V. Φ -lines and evaporation rate surfaces*. J. Chem. Phys., **110**, 1202.
- [20] P. Weathers, B.E. Wyslouzil, K.K. Wobbe, Y.J. Kim, and E. Yigit, 1999 *The biological response of Hairy root to O₂ levels in bioreactors*, In Vitro, **35**, 286.
- [21] B.E. Wyslouzil, G. Wilemski, J.L. Cheung, R. Strey and J. Barker, 1999, *Doppler shift anisotropy in aerosol SANS*, Phys. Rev. E, **60**, 4330.
- [22] B.E. Wyslouzil, R. Waterbury, and P.J. Weathers, 2000, *The growth of single roots of Artemisia annua in nutrient mist reactors*, Biotechnology and Bioengineering, **70**, 143.
- [23] B.E. Wyslouzil, C.H. Heath, J.L. Cheung, and G. Wilemski, 2000, *Binary condensation in a supersonic nozzle*, J. Chem. Phys., **113**, 7317.
- [24] Y.J. Kim, B.E. Wyslouzil, and P.J. Weathers, 2001 *A comparative study of mist and bubble column reactors in the in vitro production of artemisinin*, Plant Cell Reports, **20**, 451.
- [25] B.E. Wyslouzil and S.Y. Chen, 2001 *Binary nucleation kinetics. VI. Partially miscible systems.*, J. Phys. Chem.B, **105**, 11566.
- [26] Y.J. Kim, B.E. Wyslouzil, and P.J. Weathers, 2002 *Secondary metabolism of hairy root cultures in bioreactors*, In Vitro Cell Dev. Biol. Plant, **38**, - .
- [27] K.A. Streletzky, Y. Zvinevich, B.E. Wyslouzil, and R. Strey, 2002 *Controlling nucleation*

- and growth of nanodroplets in supersonic nozzles.* J. Chem. Phys. **116**, 4058
- [28] Wang, H., Zhao, B., Wylslouzil, B.E., and Streletzky, K., 2003, *Small-angle neutron scattering of soot formed in laminar pre-mixed ethylene flames*, The Proceedings of the Combustion Institute, **29**, 2749
- [29] Y.J. Kim, P.J. Weathers, and B.E. Wylslouzil, *The growth of artemisia annua hairy roots in liquid and gas phase reactors*. Biotechnology and Bioengineering, **80**, 454.
- [30] Wölk, J, Strey R., Heath, C.H., and Wylslouzil, B.E., 2002, *Empirical correction functions for water nucleation rates*, J. Chem. Phys., **117**, 4954.
- [31] Heath, C.H., Streletzky, K.A., Wylslouzil, B.E., Wölk, J, and Strey R., 2002, *H_2O-D_2O condensation in a supersonic nozzle*, J. Chem. Phys., **117**, 6176.
- [32] Heath, C.H., Streletzky, K.A., Wylslouzil, B.E., Wölk, J, and Strey R., 2003, *Small angle neutron scattering from H_2O-D_2O nanodroplets and binary nucleation rates in a supersonic nozzle*, J. Chem. Phys., **118**, 5465.
- [33] Khan, A., Heath, C.H., Diergsweiler, U.M., Wylslouzil, B.E., and Strey R., 2003, *Homogeneous nucleation rates for D_2O in a supersonic nozzle*, J. Chem. Phys., **119**, 3138.
- [34] Y.J. Kim, P.J. Weathers, and B.E. Wylslouzil, 2003 *Growth dynamics of Artemisia annua hairy roots in three culture systems*, Biotechnology and Bioengineering, **83**, 428.
- [35] F.F. Souret, Y.J. Kim, B.E. Wylslouzil, K.K. Wobbe, and P. J. Weathers, 2003 *Scale-up of Artemisia annua L. hairy root cultures produced complex patterns of terpenoid gene expression*. Biotechnology and Bioengineering, **83**, 653 – 667.
- [36] Yoo Jeong Kim, Barbara E. Wylslouzil, Gerald Wilemski, Judith Wölk, and Reinhard Strey, 2004 *Isothermal Nucleation Rates in Supersonic Nozzles and the Properties of Small Water Clusters, Feature Article*: J. Phys. Chemistry A, **108**, 4365 – 4377.
- [37] Paolo Paci, Yury Zvinevich, Shinobu Tanimura, Barbara E. Wylslouzil, Mark Zahniser, Joanne Shorter, David Nelson, Barry McManus, 2004 *Spatially-resolved gas phase composition measurements in supersonic flows using tunable diode laser absorption spectroscopy*, J. Chem. Phys., **121**, 9964 – 9970.
- [38] Murad Gharibeh, Yoojeong Kim, Uta Diergsweiler, Barbara E. Wylslouzil, David Ghosh, and Reinhard Strey, 2005 *Homogeneous nucleation of n-propanol, n-butanol, and n-pentanol in a supersonic nozzle*. J Chem. Phys., **122**, 094512/1-094512/9.
- [39] Shinobu Tanimura, Yury Zvinevich, Barbara E. Wylslouzil, Mark Zahniser, Joanne Shorter, David Nelson, Barry McManus, 2005 *Temperature and gas phase composition measurements in supersonic flows using tunable diode laser absorption spectroscopy: The effect of condensation on the boundary layer thickness*, J. Chem. Phys., **122**, 194304/1 – 194304/11
- [40] Andrew Roberts, Barbara E. Wylslouzil, and Lawrence Bonassar, 2005, *Aerosol delivery of mammalian cells for tissue engineering*, Biotechnology and Bioengineering, **91**, 801 – 807
- [41] Barbara E. Wylslouzil, Gerald Wilemski, Reinhard Strey, Christopher H. Heath, and Uta Diergsweiler, “Experimental evidence for internal structure in aqueous-organic nanodroplets,” Phys. Chem. Chem. Phys., **8**, 54 (2006), *Communication*. First published on the web on 21 Nov. 2005 as a *Hot Paper*.
- [42] Towler, M.J., Wylslouzil, B.E., Weathers, P.J. 2007, “*Using an aerosol deposition model to increase hairy root growth in a mist reactor.*” Biotechnology & Bioengineering, **96**, 881 – 891
- [43] Shinobu Tanimura, Yury Zvinevich, Barbara E. Wylslouzil, Mark Zahniser, Joanne Shorter, David Nelson, Barry McManus, 2007 *Tunable Diode Laser Absorption Spectroscopy Study of CH_3CH_2OD/D_2O Binary Condensation in a Supersonic Laval Nozzle*, J. Chem. Phys., **127**, 034305/1 – 034305/13, (2007).
- [44] Barbara Wylslouzil, Gerald Wilemski, Reinhard Strey, Soenke Seifert, and Randall E.

- Winans, "Small angle x-ray scattering measurements probe water droplet evolution under highly non-equilibrium conditions", Phys. Chem. Chem. Phys., **9**, 5353-5358, (2007).
- [45] David Ghosh, Alexandra Manka, Reinhard Strey, Soenke Seifert, Randall E. Winans, and Barbara E. Wyslouzil, "Using small angle x-ray scattering to measure the homogeneous nucleation rates of n-propanol, n-butanol, and n-pentanol in supersonic nozzle expansions", J. Chem. Phys., **129**(2008).
- [46] Lisa L. Van Loon, Heather C. Allen, and Barbara E. Wyslouzil, "Effective diffusion coefficients for methanol in sulfuric acid solutions measured by Raman spectroscopy", J. Phys. Chem. A, **112**, 10758-10763 (2008).
- [47] Pamela Weathers, Chunzhao Liu, Melissa Towler, and Barbara Wyslouzil, "Mist reactors: principles, comparison of various systems, case studies", Electronic Journal of Integrative Biosciences, Special Issue on Hairy Roots (2008)
- [48] Somnath Sinha, Hartawan Laksmono, and Barbara E. Wyslouzil, "A cryogenic supersonic nozzle apparatus to study homogeneous nucleation of Ar and other simple molecules," Rev. Sci. Instrum. **79**, 114101, (2008)
- [49] Somnath Sinha, Barbara E. Wyslouzil, and Gerald Wilemski, "Modeling of H_2O/D_2O Condensation in Supersonic Nozzles", Aerosol Sci. Technol., **43**:9–24, (2009)
- [50] Y. Wu, J. Chalmers, B. E. Wyslouzil, "The use of electrospray to disperse hydrophobic compounds in aqueous media," Aerosol Science and Technology, **43**, 902-910 (2009)
- [51] Yun Wu, Bo Yu, Andrew Jackson, Weibin Zha, L. James Lee, Barbara E. Wyslouzil "Electrohydrodynamic Spraying: A novel one-step technique to prepare oligodeoxynucleotide (ODN) encapsulated lipoplex nanoparticles" Molecular Pharmaceutics, **6**, 1371–1379 (2009)
- [52] Yun Wu, Zhengzheng Fei, L. James Lee, Barbara E. Wyslouzil, "Coaxial Electrohydrodynamic Spraying of Plasmid DNA/Polyethylenimine (PEI) for Nonviral Gene Delivery" Biotechnology and Bioengineering, **105**, 834 – 841, (2010).
- [53] David Ghosh, Dirk Bergmann, Regina Schwering, Judith Wölk, Reinhard Strey, Shinobu Tanimura, Barbara E. Wyslouzil, "Homogeneous nucleation of a homologous series of n-alkanes (C_iH_{2i+2} , $i=7-10$) in a supersonic nozzle," J. Chem. Phys., **132**, 024307 (2010).
- [54] Somnath Sinha, Ashutosh Bhabhe, Hartawan Laksmono, Judith Wölk, Reinhard Strey, and Barbara Wyslouzil, "Argon nucleation in a cryogenic supersonic nozzle," J. Chem. Phys., **132**, 064304 (2010).
- [55] Shinobu Tanimura, Gerald Wilemski, and Barbara E. Wyslouzil, "CH₃CH₂OD/D₂O Binary Condensation in a Supersonic Laval Nozzle: Presence of small clusters inferred from a macroscopic energy balance," J. Chem. Phys., **132**, 144301 (2010).
- [56] D. Liang, H. C. Allen, G. S. Frankel, Z. Y. Chen, R. G. Kelly, Y. Wu and B. Wyslouzil, "Effect of Sodium Chloride Particles on Atmospheric Corrosion of Silver in the Presence of Ozone, UV and Relative Humidity" J. Electrochemical Soc., **157**, C146 - C156 (2010).
- [57] Yoojeong Kim, Ashok Gidwani, Mark Sippola, Barbara E. Wyslouzil, and Chang W. Sohn "Source Term Model for Fine Particle Resuspension from Indoor Surfaces," Building and Environment, **45**, 1854 – 1865, (2010).
- [58] Shinobu Tanimura, Uta M. Dierergsweiler and Barbara E. Wyslouzil, "Binary nucleation rates for ethanol/water mixtures in supersonic Laval nozzles", J. Chem. Phys., **133**, 174305, (2010).
- [59] Hartawan Laksmono, Shinobu Tanimura, Heather C. Allen, Gerald Wilemski, Mark S. Zahniser, Joanne H. Shorter, David D. Nelson, J. Barry McManus, and Barbara E. Wyslouzil, "Monomer, clusters, liquid: An integrated spectroscopic study of methanol condensation," Phys. Chem. Chem. Phys., **13**, 5855-5871 (2011). **Hot**

Paper

- [60] Yun Wu, Ningning Ma, Barbara E. Wyslouzil, Jeffery J. Chalmers, Ellen McCormick and Susan A. Casnocha “*Enhanced Productivity of NS0 Cells in Fed-Batch Culture with Cholesterol Nanoparticle Supplementation,*” *Biotechnology Progress*, **27**, 796-802 (2011).
- [61] Hartawan Laksmono, Shinobu Tanimura, and Barbara E. Wyslouzil, “*Methanol nucleation in a supersonic nozzle,*” *J. Chem. Phys.* **135**, 074305 (2011).
- [62] Ashutosh Bhabhe and Barbara E. Wyslouzil, “*Nitrogen nucleation in a cryogenic supersonic nozzle*” *J. Chem. Phys.* **135**, 244311, (2011).
- [63] Alexandra Manka, Harshad Pathak, Shinobu Tanimura, Judith Wölk, Reinhard Strey, and Barbara E. Wyslouzil, *Freezing water in no-man’s land*, *Phys. Chem. Chem. Phys.*, **14**, 4505-4516 (2012). DOI: 10.1039/c2cp23116f.
- [64] Anthony D. Duong, Sadhana Sharma, Kevin Peine, Gaurav Gupta, Abhay R Satoskar, Eric M. Bachelder, Barbra E. Wyslouzil, Kristy M. Ainslie, *Electrospray Encapsulation of Toll-Like Receptor Agonist Resiquimod in Polymer Microparticles for the Treatment of Visceral Leishmaniasis*, *Molecular Pharmaceutics*, **10**, 1045-1055 (2013) DOI: 10.1021/mp3005098
- [65] Viraj P. Modak, Harshad Pathak, Mitchell Thayer, Sherwin Singer, Barbara E. Wyslouzil, *Experimental evidence for surface freezing in supercooled n-alkane nanodroplets*, *Phys. Chem. Chem. Phys.*, **15** 6783-6795 (2013)
DOI: 10.1039/C3CP44490B
- [66] Ashutosh Bhabhe, Harshad Pathak and Barbara Wyslouzil, *Freezing of heavy water (D_2O) nanodroplets*, *J. Phys. Chem. A*, **117**, 5472–5482, (2013)
- [67] Harshad Pathak, Kelley Mullick, Shinobu Tanimura, Barbara E. Wyslouzil *Non-isothermal droplet growth in the free molecular regime*, *Aerosol Science and Technology*, (2013) DOI:10.1080/02786826.2013.839980
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<http://dx.doi.org/10.1063/1.4826652>
- [69] Anthony D. Duong, Gang Ruan, Kalpesh Mahajan, Jessica O. Winter, and Barbara E. Wyslouzil, *Scalable, Semicontinuous Production of Micelles Encapsulating Nanoparticles via Electrospray*, *Langmuir*, **30**, 3939-3948 (2014)
<http://dx.doi.org/10.1021/la404679r>
- [70] Harshad Pathak, Judith Wölk, Reinhard Strey, and Barbara E. Wyslouzil, *Co-condensation of nonane and D_2O in a supersonic nozzle*, *J. Chem. Phys.* **140**, 034304 (2014) <http://dx.doi.org/10.1063/1.4861052>
- [71] Harshad Pathak, Abdalla Obeidat, Gerald Wilemski, and Barbara Wyslouzil, *The structure of D_2O -nonane nanodroplets*, *J. Chem. Phys.* **140**, 224318 (2014);
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- [72] Kelley Mullick, Ashutosh Bhabhe, Alexandra Manka, Judith Wölk, Reinhard Strey and Barbara E. Wyslouzil, *Isothermal nucleation rates of n-propanol, n-butanol, and n-pentanol in supersonic nozzles: critical cluster sizes and the role of coagulation*, *J. Phys. Chem. B*, **119**, 9009-9019 (2015)
<http://dx.doi.org/10.1021/jp508335p>
- [73] Lara Jane S. Hadlocon, Lingying Zhao, Barbara E. Wyslouzil, Heping Zhu, *Semi-*

mechanistic modelling of ammonia absorption in an acid spray wet scrubber based on mass balance, Biosystems Engineering, **136**, 14-24, (2015)
<http://dx.doi.org/10.1016/j.biosystemseng.2015.05.002>

- [74] L.S. Hadlocon, L.Y. Zhao, G. Bohrer, W. Kenny, S.R. Garrity, J. Wang, B. Wyslouzil & J. Upadhyaya, *Modeling of particulate matter dispersion from a poultry facility using AERMOD*, Journal of the Air & Waste Management Association, **65** (2), (2015) <http://dx.doi.org/10.1080/10962247.2014.986306>
- [75] Shinobu Tanimura, Yensil Park, Andrew Amaya, Viraj Modak, Barbara E. Wyslouzil, *Following heterogeneous nucleation of CO₂ on H₂O ice nanoparticles with microsecond resolution*, RSC Advances, **5**, 105537-105550 (2015) <http://dx.doi.org/10.1039/c5ra19782a>
- [76] Anthony D. Duong, Michael A. Collier, Eric M. Bachelder, Barbara E. Wyslouzil, Kristy M. Ainslie, *One Step Encapsulation of Small Molecule Drugs in Liposomes via Electrospray-Remote Loading*, Molecular Pharmaceutics, **13**, 92 - 99 (2016) <http://dx.doi.org/10.1021/acs.molpharmaceut.5b00528>
- [77] Matthew D. Gallovic, Douglas G. Montjoy, Michael A. Collier, Clement Do, Barbara E. Wyslouzil, Eric M. Bachelder, Kristy M. Ainslie, *Chemically Modified Inulin Microparticles Serving Dual Function as a Protein Antigen Delivery Vehicle and Immunostimulatory Adjuvant*, Biomaterials Science, **4**, 483-493 (2016) <http://dx.doi.org/10.1039/c5bm00451a>
- [78] Yoojeong Kim, Glyn Wellum, Kerrianne Mello, Kenneth E. Strawhecker, Richard Thoms, Arjan Giaya, and Barbara E. Wyslouzil, *Effects of Relative Humidity and Particle and Surface Properties on Particle Resuspension Rates*, Aerosol Science and Technology, **50**, 339-352 (2016)
<http://dx.doi.org/10.1080/02786826.2016.1185084>
- [79] Matthew D. Gallovic, Saibal Bandyopadhyay, Hassan Borteh, Douglas G. Montjoy, Michael A. Collier, Kevin J. Peine, Barbara E. Wyslouzil, Eric M. Bachelder, and Kristy M. Ainslie, *Microparticles formulated from a family of novel silylated polysaccharides demonstrate inherent immunostimulatory properties and tunable hydrolytic degradability*, Journal of Materials Chemistry B, **4**, 4302-4312 (2016) <http://dx.doi.org/10.1039/c6tb00745g>
- [80] Yensil Park, Shinobu Tanimura, and Barbara E. Wyslouzil, *Enhanced growth rates of nanodroplets in the free molecular regime: The role of long range interactions*, Aerosol Science and Technology, **50**, 773-780 (2016)
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- [82] Matthew D. Gallovic, Kevin L. Schully, Mathew G. Bell, Margaret A. Elberson, John R. Palmer, Christian A. Darko, Eric M. Bachelder, Barbara E. Wyslouzil, Andrea M. Keane-Meyers, Kristy M. Ainslie, *Acetalated Dextran Microparticulate Vaccine Formulated via Coaxial Electrospray Preserves Toxin Neutralization and Enhances Murine Survival Following Inhalational Bacillus Anthracis Exposure*, Advanced Healthcare Materials, **5**, 2617 – 2627 (2016).
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- [84] Barbara E. Wyslouzil and Judith Wölk, *Overview: Homogeneous nucleation from the vapor phase – The experimental science*, Journal of Chemical Physics, **145**, 211702, (2016). <http://dx.doi.org/10.1063/1.4962283> *Featured Article
- [85] Andrew J. Amaya, Harshad Pathak, Viraj P. Modak, Hartawan Laksmono, N. Duane Loh, Jonas A. Sellberg , Raymond G. Sierra, Trevor A. McQueen, Matt J. Hayes, Garth J. Williams, Marc Messerschmidt, Sébastien Boutet, Michael J. Bogan, Anders Nilsson, Claudiu A. Stan , and Barbara E. Wyslouzil, *How Cubic Can Ice Be?*, Journal of Physical Chemistry Letters, **8**, 3216 – 3222 (2017). <http://dx.doi.org/10.1021/acs.jpcllett.7b01142>
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