Thomas M. Truskett

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Current position

Dick Rothwell Endowed Chair in Chemical Engineering
Professor, Chemical Engineering and Physics
University of Texas at Austin

Appointments held

2017-	Professor, Department of Physics, University of Texas at Austin
2013-2021	Department Chair, McKetta Department of Chemical Engineering, University of Texas at Austin
2011-	Professor, McKetta Department of Chemical Engineering, University of Texas at Austin
2007-2011	Associate Professor, McKetta Department of Chemical Engineering, University of Texas at Austin
2002-2007	Assistant Professor, McKetta Department of Chemical Engineering, University of Texas at Austin
2001-2002	Postdoctoral Fellow, Biophysics Group, University of California, San Francisco
1996-2001	Graduate Research Fellow, Department of Chemical and Biological Engineering, Princeton University

Education

2001	PhD in Chemical Engineering, Princeton University
1998	MA in Chemical Engineering, Princeton University
1996	BS in Chemical Engineering, University of Texas at Austin

Honors & awards

Awards for research or professional service

2024	Academy of Distinguished Chemical Engineers, McKetta Department of Chemical Engineering, University of Texas at Austin
2018	Fellow, American Association for the Advancement of Science (AAAS)
2017	Outstanding Referee, American Physical Society (APS)
2016	Computational Molecular Science and Engineering Forum (CoMSEF) Impact Award, American Institute of Chemical Engineers (AIChE)
2015	Fellow, American Physical Society (APS)
2015	Fellow, American Institute for Medical and Biological Engineering (AIChE)
2014	O'Donnell Award in Engineering, The Academy of Medicine, Engineering, and Science of Texas (TAMEST)

2007 Allan P. Colburn Award, American Institute of Chemical Engineers (AIChE)
2006 Sloan Research Fellowship in Chemistry, Alfred P. Sloan Foundation
2005 NSF Faculty Early Career Development (CAREER) Award, National Science Foundation
2004 Packard Fellowship for Science and Engineering, David and Lucile Packard Foundation
2001 NIH National Research Service Award, National Institutes of Health

Named lectureships

2017 William E. Schiesser Award Lecture in Scientific Computing, Lehigh University
2009 Dudley A. Saville Award Lectureship, Department of Chemical and Biological Engineering, Princeton University
2008 Ernest W. Thiele Award Lectureship, Department of Chemical and Biomolecular Engineering, University of Notre Dame
2007 Hendrick C. Van Ness Award Lectureship, Department of Chemical and Biological Engineering, Rensselaer Polytechnic Institute

Teaching awards

2005 The Cockrell School of Engineering Award for Outstanding Engineering Teaching by an Assistant Professor, University of Texas at Austin
2004 Teaching Excellence Award, Student Engineering Council, University of Texas at Austin

Publications

Articles

citation data from my public profile on Google Scholar

2024 J. Clarke, L. Melcher, A. D. Crowell, F. Cavanna, J. R. Houser, K. Graham, A. M. Green, J. C. Stachowiak, **T. M. Truskett**, D. J. Milliron, A. M. Rosales, M. Das, and J. Alvarado, Morphological control of bundled actin networks subject to fixed-mass depletion, Journal of Chemical Physics **161**, 074905 (August)
2024 Z. M. Sherman, D. J. Milliron, and **T. M. Truskett**, ACS Nano, Distribution of single-particle resonances determines plasmonic response of disordered nanoparticle ensembles, ACS Nano **18**, 21347–21363 (August)
2024 W. J. Chang, B. J. Roman, A. M. Green, **T. M. Truskett**, and D. J. Milliron, Surface-enhanced infrared absorption spectroscopy by resonant vibrational coupling with plasmonic metal oxide nanocrystals, ACS Nano **18**, 20636-20647 (July)
2024 Z. M. Sherman, J. Kang, D. J. Milliron, and **T. M. Truskett**, Illuminating disorder: Optical properties of complex plasmonic assemblies, Journal of Physical Chemistry Letters **15**, 6424–6434 (June)
2024 M. W. Berry, A. M. Green, B. J. Roman, **T. M. Truskett** and D. J. Milliron, Incorporating dopant effects in the plasmon ruler for metal-oxide nanocrystal superlattices, ACS Materials Letters 6, 1929–1937 (April)
2024 A. M. Green, W. J. Chang, Z. M. Sherman, Z. Sakotic, K. Kim, D. Wasserman, D. J. Milliron, and **T. M. Truskett**, Structural order and plasmonic response of nanoparticle monolayers, ACS Photonics **11**, 1280–1292 (February)
2024 M. R. Kawelah, S. Han, C. A. Dincer, J. Jeon, J. Brisola, A. F. Hussain, A. J. Soundaram,

R. Bouchard, A. E. Marras, **T. M. Truskett**, K. V. Sokolov, and K. P. Johnston, Antibody conjugated polymersomes with encapsulated indocyanine green J-aggregates and high near-infra red (NIR) absorption for molecular photoacoustic cancer imaging, ACS Applied Materials & Interfaces, **16**, 5, 5598–5612 (January)

2024 W.J. Chang, Z. Sakotic, A. Ware, A. M. Green, B. J Roman, K. Kim, **T. M. Truskett**, D. Wasserman, and D. J Milliron, Wavelength tunable infrared perfect absorption in plasmonic nanocrystal monolayers, ACS Nano **18**, 1, 972-982 (December)

2023 J. Kang, Z. M. Sherman, D. L. Conrad, H. S. N. Cory, M. N. Dominguez, S. A. Valuenzuela, E. V. Anslyn, **T. M. Truskett**, and D. J. Milliron, Structural control of plasmon resonance in molecularly linked metal oxide nanocrystal gel assemblies, ACS Nano **17**, 24218–24226 (December)

2023 A. A. Chowdhury, N. Manohar, A. Lanzaro, W. D. Kimball, M. A. Witek, M. A. Woldeyes, R. Majumdar, K. K. Qian, S. Xu, Richard E. Gillilan, Qingqiu Huang, **T. M. Truskett**, and K. P. Johnston. Characterizing protein–protein interactions and viscosity of a monoclonal antibody from low to high concentration using small-angle X-ray scattering and molecular dynamics simulations. Molecular Pharmaceutics **20**, 5563–5578 (October)

2023 R. B. Jadrich, D. J. Milliron, and **T. M. Truskett**, Colloidal gels. Journal of Chemical Physics **159**, 090401 (September)

2023 K. Kim, Z. M. Sherman, A. Cleri, W. J. Chang, J.-P. Maria, **T. M. Truskett**, D. J. Milliron, Hierarchically doped plasmonic nanocrystal metamaterials. Nano Letters **23**, 7633–7641 (August)

2023 H. Gauri, Z. M. Sherman, A. Al Harraq, **T. M. Truskett**, and Bhuvnesh Bharti. Magnetic field enabled *in-situ* control over structure and dynamics of colloids interacting via SALR potentials. Soft Matter, 2023, **19**, 4439 - 4448 (June)

2023 A. A. Chowdhury, N. Manohar, M. A. Witek, M. A. Woldeyes, R. Majumdar, K. K. Qian, W. D. Kimball, S. Xu, A. Lanzaro, **T. M. Truskett**, and K. P. Johnston. Subclass effects on self-association and viscosity of monoclonal antibodies at high concentration. Molecular Pharmaceutics **20**, 6, 2991–3008 (May)

2023 S. Kadulkar, Z. W. Brotherton, A. L. Lynch, G. Pohlman, Z. Zhang, R. Torres, A. Manthiram, N. A. Lynd, **T. M. Truskett**, and V. Ganesan, The importance of morphology on ion transport in single-ion, comb-branched copolymer electrolytes: Experiments and simulations, Macromolecules **56**, 2790–2800 (March)

2023 Z. M. Sherman, K. Kim, J. Kang, B. J. Roman, H. S. N. Crory, D. L. Conrad, S. A. Valenzuela, E. Lin, M. N. Dominguez, S. L. Gibbs, E. V. Anslyn, D. J. Milliron, and **T. M. Truskett**, Plasmonic response of complex nanoparticle assemblies, Nano Letters **23**, 3030–3037 (March)

2023 A. Chowdhury, N. Manohar, G. Guruprasad, A. T. Chen, A. Lanzaro, M. Blanco, K. P. Johnston, **T. M. Truskett**. Characterizing experimental monoclonal antibody interactions and clustering using a coarse-grained simulation library and a viscosity model. Journal of Physical Chemistry B **127**, 5, 1120-1137 (January)

2023 A. J. Cooper, M. P. Howard, S. Kadulkar, D. Zhao, K. T. Delaney, V. Ganesan, **T. M. Truskett**, G. H. Fredrickson. Multiscale modeling of solute diffusion in triblock copolymer membranes Journal of Chemical Physics **158**, 024905 (January)

2023 J. Kang, Z. M. Sherman, H. S. N. Crory D. L. Conrad, M. W. Berry, B. J. Roman, E. V. Anslyn, **T. M. Truskett**, and D. J. Milliron. Modular mixing in plasmonic metal oxide nanocrystal gels with thermoreversible links. Journal of Chemical Physics **158**, 024903 (January)

2022 C. K. Ofosu, J. Kang, **T. M. Truskett**, and D. J. Milliron. Effective hard-sphere repulsions between oleate-capped metal oxide nanocrystals. Journal of Physical Chemistry Letters **13**, 11323–11329 (December)

2022 A. M. Green, S. Kadulkar, Z. M. Sherman, T. M. Fitzsimons, C. K. Ofosu, J. Yan, D.

Zhao, J. Ilavsky, A. M. Rosales, B. A. Helms, V. Ganesan, **T. M. Truskett**, and D. J. Milliron. Depletion-driven assembly of polymer-coated nanocrystals. Journal of Physical Chemistry C **126**, 19507-19518 (November)

2022 T. Kwon, T. A. Wilcoxson, D. J. Milliron, and **T. M. Truskett**. Dynamics of equilibrium linked colloidal networks. Journal of Chemical Physics **157**, 184902 (October)

2022 M. Singh, Z. M. Sherman, D. J. Milliron, and **T. M. Truskett**. Linker-templated structure tuning of optical response in plasmonic nanoparticle gels. Journal of Physical Chemistry C **126**, 16885–16893 (September)

2022 R. B. Jadrich, B. A. Lindquist, and **T. M. Truskett**. Treating random sequential addition via the replica method. Journal of Chemical Physics **157**, 084116 (August)

2022 L. Samineni, S. De Respino, Y. Tu, R. Chowdhury, R. P. Mohanty, H. Oh, M. Geitner, C. H. Alberg, A. Roman-White, S. McKinzie, C. Lemus, J. Massey, D. Ghosh, **T. M. Truskett**, S. Velegol, and M. Kumar, Effective pathogen removal in sustainable natural fiber Moringa filters. npj Clean Water **5**, 27 (July)

2022 A. Al Harraq, A. A. Hymel, E. Lin, **T. M. Truskett**, and B. Bharti, Dual nature of magnetic nanoparticle dispersions enables control over short-range attraction and long-range repulsion interactions. Communications Chemistry **5**, 72 (June)

2022 J. Kim and **T. M. Truskett**, Geometric model of crack-templated networks for transparent conductive films. Applied Physics Letters **120**, 211108 (May)

2022 S. Kadulkar, Z. M. Sherman, **T. M. Truskett**, and V. Ganesan, Machine learning-assisted design of material properties. Annual Review of Chemical and Biomolecular Engineering, **13**, 235-254 (March)

2022 J. Kang, S. A. Valenzuela, E. Y. Lin, M. N. Dominguez, Z. M. Sherman, **T. M. Truskett**, E. V. Anslyn, and D. J. Milliron, Colorimetric quantification of linking in thermoreversible nanocrystal gel assemblies. Science Advances **8**, eabm7364 (February)

2022 A. M. Green, C. K. Ofosu, J. Kang, E. V. Anslyn, **T. M. Truskett**, and D. J. Milliron, Assembling inorganic nanocrystal gels. Nano Letters **22**, 1457–1466 (February)

2021 S. Kadulkar, M. P. Howard, **T. M. Truskett**, and V. Ganesan, Prediction and optimization of ion transport characteristics in nanoparticle-based electrolytes using convolutional neural networks. Journal of Physical Chemistry B **125**, 4838-4849 (April)

2021 Z. M. Sherman, A. M. Green, M. P. Howard, E. V. Anslyn, **T. M. Truskett**, and D. J. Milliron, Colloidal nanocrystal gels from thermodynamic principles. Accounts of Chemical Research **54**, 798–807 (February)

2021 M. P. Howard, Z. M. Sherman, A. N Sreenivasan, S. A. Valenzuela, E. V. Anslyn, D. J. Milliron, and **T. M. Truskett**, Effects of linker flexibility on phase behavior and structure of linked colloidal gels. Journal of Chemical Physics **154**, 074901 (February) [Scilight]

2021 M. P. Howard, Z. M. Sherman, D. J. Milliron, and **T. M. Truskett**, Wertheim's thermodynamic perturbation theory with double-bond association and its application to colloid–linker mixtures. Journal of Chemical Physics **154**, 024905 (2021) (January)

2020 M. N. Dominguez, M. P. Howard, J. M. Maier, S. A. Valenzuela, Z. M. Sherman, J. F. Reuther, L. C. Reimnitz, J. Kang, S. H. Cho, S. L. Gibbs, A. K. Menta, D. L. Zhuang, A. van der Stok, S. J. Kline, E. V. Anslyn, **T. M. Truskett**, and D. J. Milliron, Assembly of linked nanocrystal colloids by reversible covalent bonds. Chemistry of Materials **32**, 10235–10245 (November)

2020 S. Kadulkar, D. J. Milliron, **T. M. Truskett**, and V. Ganesan, Transport mechanisms underlying ionic conductivity in nanoparticle-based single-ion electrolytes. Journal of Physical Chemistry Letters **11**, 6970−6975 (August)

2020 M. P. Howard, A. Statt, H. A. Stone, and **T. M. Truskett**, Stability of force-driven shear flows in nonequilibrium molecular simulations with periodic boundaries. Journal of Chemical Physics **152**, 214113 (June)

2020 C. A. Saez Cabezas, Z. M. Sherman, M. P. Howard, M. N. Dominguez, S. H. Cho, G. K. Ong, A. M. Green, **T. M. Truskett,** and D. J. Milliron, Universal gelation of metal oxide nanocrystals via depletion attractions. Nano Letters **20**, 4007-4013 (May)

2020 Z. M. Sherman, M. P. Howard, B. A. Lindquist, R. A. Jadrich, and **T. M. Truskett**, Inverse methods for design of soft materials. Journal of Chemical Physics **152**, 140902 (April)

2020 M. P. Howard, J. Lequieu, K. T. Delaney, V. Ganesan, and **T. M. Truskett**, Connecting solute diffusion to morphology in triblock copolymer membranes. Macromolecules **53**, 2336-2343 (March)

2020 A. A. Chowdhury, J. A. Bollinger, Barton J. Dear, J. K. Cheung, K. P. Johnston, and **T. M. Truskett**, Coarse-grained molecular dynamics simulations for understanding the impact of short-range anisotropic attractions on structure and viscosity of concentrated monoclonal antibody solutions. Molecular Pharmaceutics **5**, 1748-1756 (February)

2020 D. Aryal, M. P. Howard, R. Samanta, S. Antoine, R. Segalman, **T. M. Truskett**, and V. Ganesan, Influence of pore morphology on the diffusion of water in triblock copolymer membranes. Journal of Chemical Physics **152**, 014904 (January)

2020 A. A. Chowdhury, G. Guruprasad, A. T. Chen, C. A. Karouta, M. A. Blanco, **T. M. Truskett**, and K. P. Johnston, Protein-protein interactions, clustering, and rheology for bovine IgG up to high concentrations characterized by small angle x-ray scattering and molecular dynamics simulations. Journal of Pharmaceutical Sciences **109**, 696-708 (January)

2020 X. Zhu, R. T. Bonnecaze, and **T. M. Truskett**, Graphoepitaxy of hard spheres into square lattices. Colloids and Surfaces A **585**, 124115 (January)

2019 B. Changalvaie, S. Han, E. Moaseri, F. Scaletti, L. Truong, R. Caplan, A. Cao, R. Bouchard, **T. M. Truskett**, K. V. Sokolov, and K. P. Johnston, Indocyanine green J aggregates in polymersomes for near IR photoacoustic imaging. ACS Applied Materials & Interfaces **11**, 46437-46450 (December)

2019 M. P. Howard, R. B. Jadrich, B. A. Lindquist, F. Khabaz, R. T. Bonnecaze, D. J. Milliron, and **T. M. Truskett**, Structure and phase behavior of polymer-linked colloidal gels. Journal of Chemical Physics **151**, 124901 (September) [Scilight]

2019 B. A. Lindquist, R. B. Jadrich, M. P. Howard, and **T. M. Truskett**, The role of pressure in inverse design for assembly. Journal of Chemical Physics **151**, 104104 (September)

2019 B. J. Dear, A. A. Chowdhury, J. J. Hung, C. A. Karouta, K. Ramachandran, M. P. Nieto, L. Wilks, A. Sharma, T. Y. Shay, J. K Cheung, **T. M. Truskett**, and K. P. Johnston, Relating collective diffusion, protein-protein interactions and viscosity of highly concentrated monoclonal antibodies through dynamic light scattering. Industrial & Engineering Chemistry Research **58**, 22456-22471 (August)

2019 J. J. Hung, W. F. Zeno, A. A. Chowdhury, B. J. Dear, K. Ramachandran, M. P. Nieto, T. Y. Shay, C. A. Karouta, C. C. Hayden, J. K Cheung, **T. M. Truskett**, J. C. Stachowiak, and K. P. Johnston, Self-diffusion of a highly concentrated monoclonal antibody by fluorescence correlation spectroscopy: insight into protein–protein interactions and self-association. Soft Matter **15**, 6660-6676 (August)

2019 B. J. Dear, J. J. Hung, J. R. Laber, L. R. Wilks, A. Sharma, **T. M. Truskett**, and K. P. Johnston, Enhancing stability and reducing viscosity of a monoclonal antibody with co-solutes by weakening protein-protein interactions. Journal of Pharmaceutical Sciences **108**, 2517-2526 (August)

2019 S. Kadulkar, D. Banerjee, F. Khabaz, R. T Bonnecaze. **T. M. Truskett**, and V. Ganesan, Influence of morphology of colloidal nanoparticle gels on ion transport and rheology. Journal of Chemical Physics **150**, 214903 (June)

2019 B. J. Dear, J. A. Bollinger, A. Chowdhury, J. J. Hung, L. R. Wilks, C A. Karouta, K. Ramachandran, T. Y. Shay, M. P. Nieto, A. Sharma, J. K. Cheung, D. Nykypanchuk, P. D. Godfrin, K. P. Johnston, and **T. M. Truskett**, X-ray scattering and coarse-grained

simulations for clustering and interactions of monoclonal antibodies at high concentrations. Journal of Physical Chemistry B **123**, 5274-5290 (May)

2019 X. Zhu, **T. M. Truskett**, and R. T. Bonnecaze, Phase diagram for two-dimensional layer of soft particles. Soft Matter **15**, 4162-4169 (April)

2019 M. P. Howard, A. Statt, F. Madutsa, **T. M. Truskett**, and A. Z Panagiotopoulos, Quantized bounding volume hierarchies for neighbor search in molecular simulations on graphics processing units. Computational Materials Science **164**, 139-146 (April)

2019 M. P. Howard, **T. M. Truskett**, and A Nikoubashman, Cross-stream migration of a Brownian droplet in a polymer solution under Poiseuille flow. Soft Matter **15**, 3168-3178 (April)

2019 D. Banerjee, B. A. Lindquist, R. B. Jadrich, and **T. M. Truskett**, Assembly of particle strings via isotropic potentials. Journal of Chemical Physics **150**, 124903 (March)

2019 J. J. Hung, B. J. Dear, C. A. Karouta, A. A. Chowdhury, P. D. Godfrin, J. A. Bollinger, M. P. Nieto, L. R. Wilks, T. Y. Shay, K. Ramachandran, A. Sharma, J. K Cheung, **T. M. Truskett**, and K. P. Johnston, Protein-protein interactions of highly concentrated monoclonal antibody solutions via static light scattering and influence on the viscosity. Journal of Physical Chemistry B **123**, 739–755 (January)

2018 R. B. Jadrich, B. A. Lindquist, and **T. M. Truskett**, Unsupervised machine learning for detection of phase transitions in off-lattice systems. I. Foundations. Journal of Chemical Physics **149**, 194109 (October)

2018 R. B. Jadrich, B. A. Lindquist, W. D. Piñeros, D. Banerjee, and **T. M. Truskett**, Unsupervised machine learning for detection of phase transitions in off-lattice systems. II. Applications. Journal of Chemical Physics **149**, 194110 (October)

2018 C. A. Saez Cabezas, G. K. Ong, R. B. Jadrich, B. A. Lindquist, A. Agrawal, **T. M. Truskett**, and D. J. Milliron, Gelation of plasmonic metal oxide nanocrystals by polymer-induced depletion attractions. Proceedings of the National Academy of Sciences, USA **115** 8925-8930 (August)

2018 B. A. Lindquist, R. B. Jadrich, and **T. M. Truskett**, Communication: From close-packed to topologically close-packed: Formation of Laves phases in moderately polydisperse hard-sphere mixtures. Journal of Chemical Physics **148**, 191101 (May) [Cover]

2018 J. J. Hung, B. J. Dear, A. K. Dinin, A. U. Borwankar, S. K. Mehta, **T. M. Truskett,** and K. P. Johnston, Improving viscosity and stability of a highly concentrated monoclonal antibody solution with concentrated proline, Pharmaceutical Research **35**, 133 (April)

2018 B. A. Lindquist, R. B. Jadrich, and **T. M. Truskett**, Inverse design of self-assembling Frank-Kasper phases and insights into emergent quasicrystals. Journal of Physical Chemistry B **122**, 5547-5556 (March)

2018 W. D. Piñeros, B. A. Lindquist, R. B. Jadrich, and **T. M. Truskett**, Inverse design of multicomponent assemblies. Journal of Chemical Physics **148**, 104509 (March) [Scilight]

2017 W. P. Krekelberg, D. W. Siderius, V. K. Shen, **T. M. Truskett**, and J. R. Errington, Position-dependent dynamics explain pore-averaged diffusion in strongly attractive adsorptive systems. Langmuir **33**, 13955–13963 (November)

2017 W. D. Piñeros, R. B. Jadrich, and **T. M. Truskett**, Design of two-dimensional particle assemblies using isotropic pair interactions with an attractive well. AIP Advances **7**, 115307 (November)

2017 E. Moaseri, J. A. Bollinger, B. Changalvaie, J. Schroer, K. P. Johnston, and **T. M. Truskett**, Reversible self-assembly of gold nanoparticle clusters via pH-tunable interactions between glutathione and citrate. Langmuir **33**, 12244–12253 (October)

2017 J. R. Laber, B. J. Dear, J. D. Gollihar, M. L. Martins, D. E. Jackson, A. D. Ellington, **T. M. Truskett**, K. P. Johnston and J. A. Maynard, Charge shielding prevents aggregation of supercharged GFP variants at high concentration. Molecular Pharmaceutics **14**, 3269-3280 (September)

2017 W. P. Krekelberg, D. W. Siderius, V. K. Shen, **T. M. Truskett,** and J. R. Errington, Connection between thermodynamics and dynamics of simple fluids in pores: Impact of fluid-fluid interaction range and fluid-solid interaction strength. Journal of Physical Chemistry C **121**, 16316–16327 (July)

2017 R. B. Jadrich, B. A. Lindquist, and **T. M. Truskett**, Probabilistic inverse design for self-assembling materials. Journal of Chemical Physics **146**, 184103 (May) [Cover][AIP press release]

2017 W. D. Piñeros and **T. M. Truskett**, Designing pairwise interactions that stabilize open crystals: Truncated square and truncated hexagonal lattices. Journal of Chemical Physics 146, 144501 (April)

2017 E. Moaseri, R. J. Stover, B. Changalvaie, A. Cepeda, **T. M. Truskett**, K. V. Sokolov, and K. P. Johnston, Control of primary particle spacing in gold nanoparticle clusters for both high NIR extinction and full reversibility. Langmuir **33**, 3413–3426 (March)

2017 B. A. Lindquist, S. Dutta, R. B. Jadrich, D. J. Milliron, and **T. M. Truskett**, Interactions and design rules for assembly of porous colloidal mesophases. Soft Matter **13**, 1335 - 1343 (February) [Cover]

2017 B. J. Dear, J. J. Hung, **T. M. Truskett**, K. P. Johnston, Contrasting the influence of cationic amino acids on the viscosity and stability of a highly concentrated monoclonal antibody. Pharmaceutical Research **34**, 193-207 (January)

2016 Y. Yu, A. Guillaussier, V. R. Voggu, W. Pineros, **T. M. Truskett**, D. M. Smilgies, and B. A. Korgel, Cooling dodecanethiol-capped 2 nm diameter gold nanocrystal superlattices below room temperature induces a reversible order-disorder structure transition. Journal of Physical Chemistry C **120** 27682 - 27687 (November)

2016 Y. Yu, X. Lu, A. Guillaussier, V. R. Voggu, W. Pineros, M. de la Mata, J. Arbiol, D. M. Smilgies, **T.M. Truskett**, and B. A. Korgel, Orientationally ordered silicon nanocrystal cuboctahedra in superlattices. Nano Letters **16**, 7814–7821 (November)

2016 J. A. Bollinger, J. Carmer, A. Jain, and **T. M. Truskett**, Impact of solvent granularity and layering on tracer hydrodynamics in confinement. Soft Matter **12** 9561-9574 (November)

2016 B. A. Lindquist, R. B. Jadrich, and **T. M. Truskett**, Inverse design for self assembly via on- the-fly optimization. Journal of Chemical Physics **145**, 111101 (September) [2016 Editors' Choice]

2016 R. B. Jadrich, B. A. Lindquist, J. A. Bollinger, and **T. M. Truskett**, Consequences of minimising pair correlations in fluids for dynamics, thermodynamics, and structure. Molecular Physics **114**, 2411-2423 (September)

2016 A. U. Borwankar, B. J Dear, A. Twu, J. J Hung, A. K. Dinin, B. K. Wilson, J. Yue, J. A. Maynard, **T.M. Truskett**, and K. P. Johnston, Viscosity reduction of a concentrated monoclonal antibody with arginine·HCl and arginine·glutamate. Industrial and Engineering Chemistry and Research **55** 11225–11234 (August)

2016 B. A. Lindquist, R. B. Jadrich, D. J. Milliron, and **T. M. Truskett**, On the formation of equilibrium gels via a macroscopic bond limitation. Journal of Chemical Physics **145**, 074906 (August)

2016 J. A. Bollinger and **T. M. Truskett**, Fluids with competing interactions: I. Decoding the structure factor to detect and characterize self-limited clustering. Journal of Chemical Physics **145**, 064902 (August)

2016 J. A. Bollinger and **T. M. Truskett**, Fluids with competing interactions: II. Validating a free energy model for equilibrium cluster size. Journal of Chemical Physics **145**, 064903 (August)

2016 W. D. Piñeros, M. Baldea, and **T. M. Truskett**, Designing convex repulsive pair potentials that favor assembly of kagome and snub square lattices. Journal of Chemical Physics **145**, 054901 (August)

2016 M. E. Ferraro, **T. M. Truskett**, and R. T. Bonnecaze, Graphoepitaxy for translational and orientational ordering of monolayers of rectangular nanoparticles. Physical Review E **93**, 032606 (March)

2016 J. J Hung; A. U. Borwankar, B. J Dear, **T. M. Truskett**, and K. P. Johnston, High concentration tangential flow ultrafiltration of stable monoclonal antibody solutions with low viscosities. Journal of Membrane Science **508** 113–126 (February)

2016 W. D. Piñeros, M. Baldea, and **T. M. Truskett**, Breadth versus depth: Interactions that stabilize particle assemblies to changes in density or temperature. Journal of Chemical Physics **144**, 084502 (February)

2016 B. A. Lindquist, R. B. Jadrich, and **T. M. Truskett**, Assembly of nothing: Equilibrium fluids with designed structured porosity. Soft Matter **12**, 2663 - 2667 (February)

2016 R. J. Stover, E. Moaseri, S. Gourisankar, M. Iqbal, N. K. Rahbar, B. Changalvaie, **T. M. Truskett**, and K. P. Johnston, Formation of small gold nanoparticle chains with high NIR extinction through bridging with calcium ions. Langmuir **32**, 1127–1138 (January)

2016 A. J. Worthen, V. Tran, K. A. Cornell, **T. M. Truskett**, K. P. Johnston, Steric stabilization of nanoparticles with grafted low molecular weight ligands in highly concentrated brines including divalent ions. Soft Matter **12**, 2025-2039 (January)

2015 A. U. Borwankar, B. W. Willsey, A. Twu, J. J. Hung, R. J. Stover, T. W. Wang, M. D. Feldman, T.E. Milner, **T. M. Truskett**, and K. P. Johnston, Gold nanoparticles with high densities of small protuberances on nanocluster cores with strong NIR extinction. RSC Advances **5**, 104674-104687 (December)

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2015 R. B. Jadrich, J. A. Bollinger, B. A. Lindquist, and **T. M. Truskett**, Equilibrium cluster fluids: Pair interactions via inverse design Soft Matter **11**, 9342 - 9354 (September)

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Tributes, Interviews, and Book Chapters

2023 J. C Palmer, S. Sarupria, and **T. M. Truskett**, Tribute to Pablo G. Debenedetti, J. Phys. Chem. B **127**, 8075 (September)

2017 **T. M. Truskett** and J. J. McKetta, A Conversation with John McKetta. Annual Review of Chemical and Biomolecular Engineering 8, 1-11 (June)

2009 J. K. Cheung, V. K. Shen, J. R. Errington, and **T. M. Truskett**, Concentration and crowding effects on protein stability from a coarse-grained model. Statistical Mechanics of Cellular Systems and Processes, M. H. Zaman, ed. Cambridge University Press, Cambridge, 1- 25 (January)

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Patent Applications

2024 K. P. Johnston, **T. Truskett**, B. Changalvaie, E. Moaseri, K. V. Sokolov, S. Han, M. Kawaleh, Dye Aggregates-Containing Nanoparticles and Uses Thereof, US Patent application (publication no. 18487550), February 15

Invited talks

Summary of departmental seminars

Arizona State University (Physics Colloquium, 2012; Materials Science, 2016)
Autonomous University of San Luis Potosi (Institute of Physics "Manuel Sandoval Vallarta", 2015)
California Institute of Technology (Chemical Engineering, 2009)
Case Western Reserve University (Chemical Engineering, 2008)
Colorado State University (Physical Chemistry, 2013)
Columbia University (Chemical Engineering, 2015)
Cornell University (Chemical Engineering, 2007)
Florida A & M University - Florida State University (Chemical Engineering, 2016)
Georgia Institute of Technology (Chemical Engineering, 2017, 2009)
Johannes Gutenberg-Universität Mainz, Germany (Condensed Matter Physics, 2021)
Johns Hopkins University (Chemical Engineering, 2015, 2024)
Lehigh University (Chemical Engineering, 2017)
Massachusetts Institute of Technology (Chemical Engineering, 2001)
New York University (Chemical Engineering, 2020)
North Carolina State University (Chemical Engineering, 2019)
Northeastern University (Chemical Engineering, 2014)
Northwestern University (Chemical Engineering, 2019)
Pennsylvania State University (Chemical Engineering, 2015)
Princeton University (Chemical Engineering, 2009; 2000)
Purdue University (Chemical Engineering, 2016)
Rensselaer Polytechnic Institute (Chemical Engineering, 2007 (2))
Rice University (Chemical Engineering, 2004)
Texas Tech University (Chemical Engineering, 2005)
Tulane University (Chemical Engineering, 2007)
University at Buffalo, State University of New York (Chemical Engineering, 2008)
University of California, Davis (Chemical Engineering and Materials Science, 2016)
University of California, Riverside (Chemical Engineering, 2014)
University of California, Santa Barbara (Chemical Engineering, 2018; 2008)
University of Colorado (Chemical Engineering, 2001)
University of Delaware (Chemical Engineering, 2016; 2007)
University of Florida (Chemical Engineering, 2022)
University of Houston (Chemical Engineering, 2010)
University of Illinois, Urbana-Champaign (Chemical Engineering, 2001; 2009; 2013)
Universidade de Lisboa, Portugal (Instituto para a Investigacao Interdisciplinar, 2014; CFTC - Centro de Física Teórica e Computacional, 2021)
University of Ljubljana, Slovenia (Chemistry and Chemical Technology, 2017)
University of Michigan, Ann Arbor (Chemical Engineering, 2013)
University of Minnesota (Mechanical Engineering, 2016; 2007; Chemical Engineering and Materials Science, 2014)
University of New Hampshire (Chemical Engineering and Bioengineering, 2024)
University of Texas at Austin (Mathematics - Mathematical Physics, 2011; Physics, Pizza Talks, 2021; Physics Colloquium, 2016; Physics - Center for Nonlinear Dynamics, 2011; 2008; 2003; Chemistry - Institute for Theoretical Chemistry, 2004; Chemical Engineering, 2001)

University of Texas at San Antonio (Chemistry, 2007; Physics, 2013)
University of New Mexico (Chemical and Nuclear Engineering, 2014)
University of North Carolina, Chapel Hill (Applied Physical Sciences, 2019)
University of Notre Dame (Chemical Engineering, 2018; 2008; 2001)
University of Pennsylvania (Chemical Engineering, 2001; 2014)
University of Rhode Island (Chemical Engineering, 2022)
University of South Carolina (Chemical Engineering, 2016)
University of South Florida (Chemical & Biomedical Engineering, 2019)
University of Washington (Chemical Engineering, 2015)
University of Wisconsin, Madison (Chemistry, 2007; Chemical Engineering, 2018)
Vanderbilt University (Chemical Engineering, 2016)
Yale University (Physics, 2011; Mechanical Engineering and Material Science, 2006)

Student supervision and teaching

PhD supervisions completed

2024 Dr. Allison Green (co-advised with Delia J. Milliron), Dissertation: Understanding Effects Of Disorder On The Plasmonic Response Of Nanoparticle Assemblies, Chemical Engineering, University of Texas at Austin, Current position: Bain Capital, San Francisco, CA.

2023 Dr. Amjad Chowdhury (co-advised with Prof. Keith P. Johnston), Dissertation: Protein-protein interactions and rheological properties of monoclonal antibodies at high concentration, Chemical Engineering, University of Texas at Austin, Current position: Current position: Scientist I, Bristol-Myers Squibb, Lawrenceville, NJ.

2022- Dr. Laxmicharan Samineni (co-advised with Prof. Manish Kumar), Dissertation: Highly Effective and Energy-efficient Nanoparticle Filtration using Functionalized Filters fabricated with Accessible materials, Chemical Engineering, University of Texas at Austin, Current Position: Postdoctoral Fellow, UT Austin, Austin, Texas.

2022 Dr. Sanket Kadulkar (co-advised with Prof. Venkat Ganesan), Dissertation title: Investigation into Ion Transport Properties of Nanoparticle-Based Single-Ion Conducting Electrolytes, Chemical Engineering, University of Texas at Austin. Current Position: Senior Engineer, AspenTech, Boston, Massachusetts

2020 Dr. Xilan Zhu (co-advised with Roger T. Bonnecaze), Dissertation title: Template Directed Self-Assembly of Particle Monolayers, Chemical Engineering, University of Texas at Austin. Current Position: Senior Process Engineer 3, Lam Research, Fremont, California.

2020 Dr. Camila A. Saez Cabezas (co-advised with Delia J. Milliron), Dissertation title: Design and assembly of metal oxide nanocrystal gels via depletion attractions, Chemical Engineering, University of Texas at Austin. Current position: Senior Research Specialist, Dow, Midland, Michigan.

2018 Dr. Ehsan Moaseri (co-advised with Prof. Keith P. Johnston), Dissertation title: Biodegradable NIR-active contrast agents for photoacoustic imaging, Chemical Engineering, University of Texas at Austin. Current position: CEO/Founder, Nulixir Inc

2018 Dr. Barton Dear (co-advised with Prof. Keith P. Johnston), Dissertation title: Relation of protein-protein interactions to rheological properties and stability of highly concentrated solutions of monoclonal antibodies, Chemical Engineering, University of Texas at Austin. Current position: Scientist I, Bristol-Myers Squibb, Lawrenceville, NJ.

2018 Dr. Jessica J. Hung (co-advised with Prof. Keith P. Johnston), Dissertation title: Design of co-solute formulations for stable, highly concentrated monoclonal antibody solutions with low viscosity, Chemical Engineering, University of Texas at Austin. Current position: Principal Scientist, Bristol-Myers Squibb, Devens, Massachusetts.

2018 Dr. William D. Piñeros Gonzalez, Dissertation title: Novel methods for crystal self assembly. Chemistry, University of Texas at Austin. Current position: Postdoctoral Scholar, University of Luxembourg, Luxembourg.

2016 Dr. Jonathan Bollinger, Dissertation title: From confinement to clustering: Decoding the structural and diffusive signatures of microscopic frustration, Chemical Engineering, University of Texas at Austin. Current position: Research Analyst, Center for Naval Analyses, Arlington, Virginia.

2015 Dr. Mark Ferraro (co-advised with R. T. Bonnecaze), Dissertation title: Graphoepitaxy for directed self-assembly of particle monolayers, Chemical Engineering, University of Texas at Austin. Current position: Baseball Operations Analyst, San Francisco Giants, Scottsdale, Arizona.

2014 Dr. Avni Jain, Dissertation title: Inverse design for targeted self assembly, Chemical Engineering, University of Texas at Austin. Current position: Senior Product Manager, Blue Yonder, Hamburg, Germany.

2014 Dr. Ameya Borwankar (co-advised with Prof. Keith P. Johnston), Dissertation title: Formation of Nanostructures and Weakening of Interactions between Proteins to Design Low Viscosity Dispersions at High Concentrations, Chemical Engineering, University of Texas at Austin, Current position: Director, Biologics Drug Substance, Acelyrin, San Francisco, California.

2013 Dr. James Carmer, Dissertation title: Local structure and dynamics of complex fluids, Chemical Engineering, University of Texas at Austin, Current Position: Software Engineer, Google, New York, New York.

2011 Dr. Mark J. Pond, Dissertation title: Structure and dynamics of fluids: From molecular to colloidal perspectives, Chemical Engineering, University of Texas at Austin, Current position: Senior Business Manager, Capital One, Plano, Texas.

2009 Dr. Gaurav Goel, Dissertation title: From polymer collapse to confined fluids: Investigating the implications of interfacial structuring, Chemical Engineering, University of Texas at Austin, Current position: Professor, Department of Chemical Engineering, IIT- Delhi, New Delhi, India.

2008 Dr. William P. Krekelberg, Dissertation title: Relationships between structure and dynamics of attractive colloidal fluids, Chemical Engineering, University of Texas at Austin, Current position: Staff Chemical Engineer, Chemical and Biochemical Reference Data Division, National Institute of Standards and Technology, Gaithersburg, Maryland.

2007 Dr. Jeetain Mittal, Dissertation title: Structure, thermodynamics, and dynamics of confined and supercooled fluids, Chemical Engineering, University of Texas at Austin, Current position: Professor, Chemical Engineering, Texas A&M, College Station, Texas.

2006 Dr. Jason K. Cheung, Dissertation title: Coarse-grained modeling of concentrated protein solutions, Chemical Engineering, University of Texas at Austin, Current position: Distinguished Scientist, Biologics R&D, Merck Research Laboratories, Summit, New Jersey.

PhD supervisions in progress

2020- Tanner Wilcoxson, Chemical Engineering (co-advised with Delia J. Milliron), University of Texas at Austin

2020- Charles Kofi Ofosu, Chemistry (co-advised with Delia J. Milliron), University of Texas at Austin

2021- Tyla Holoman, Chemical Engineering, University of Texas at Austin

2021- William Kimball, Chemical Engineering (co-advised with Keith P. Johnston), University of Texas at Austin

2022- Chieh-Chih (George) Yeh, Chemical Engineering, University of Texas at Austin

2023- Tsung-Lun Lee, Chemical Engineering, University of Texas at Austin

2023- William Brackett (co-advised with Delia J. Milliron, Chemical Engineering, University of Texas at Austin)

2024- Jongyeong Jeon (co-advised with Alex E. Marras), Chemical Engineering, University of Texas at Austin

MSE supervisions completed

2007 Tanuj Kumar, Chemical Engineering, University of Texas at Austin, Current position: General Manager & Digital Transformation Lead at Godrej Agrovet, Mumbai, India

2014 Kyle Hollingshead, Chemical Engineering, University of Texas at Austin

Postdoctoral associates advised

2022-2024 Dr. Alfredo Lanzaro, PhD (co-advised with K. P. Johnston), Chemical Engineering, University of Manchester (UK)

2022-2023 Dr. Taejin Kwon, PhD, Physical Chemistry, Sogang University (Korea), Current Position: Assistant Professor, Chemistry, Jeju National University

2019-2023 Dr. Zachary M. Sherman, PhD, Chemical Engineering, Massachusetts Institute of Technology, Current Position: Assistant Professor, Chemical Engineering, University of Washington

2021-2022 Dr. Emily Lin, PhD, Chemical Engineering, University of Pennsylvania

2020-2022 Dr. Neha Manohar (co-advised with K. P. Johnston), PhD, Chemical Engineering, University of Pennsylvania. Current Position: Senior Research Specialist, Dow

2020-2021 Dr. Jaeuk Kim, PhD, Physics, Princeton University. Current Position: Postdoctoral Fellow, Princeton University

2020-2022 Dr. Murari Singh, PhD, Physics, IIT-Delhi (India), Current Position: Assistant Professor, Physics, IIT Tirupati (India)

2018-2021 Dr. Michael P. Howard, PhD, Chemical Engineering, Princeton University, Current Position: Assistant Professor, Chemical Engineering, Auburn University

2017-2019 Dr. Debapriya Banerjee, PhD, Materials Science and Engineering, University of Illinois, Urbana-Champaign, Current Position: Quantitative Risk Analyst, ABN AMRO Bank N. V., Amsterdam, the Netherlands.

2014-2018 Dr. Ryan Jadrich, PhD, Materials Science and Engineering, University of Illinois, Urbana-Champaign, Current Position: Staff Scientist, Los Alamos National Laboratory, Los Alamos, New Mexico.

2014-2018 Dr. Beth A. Lindquist, PhD (co-advised with D, J. Milliron), Chemistry, University of Illinois, Urbana-Champaign, Current Position: Staff Scientist, Los Alamos National Laboratory, Los Alamos, New Mexico.

2008-2009 Dr. William P. Krekelberg, PhD, Chemical Engineering, University of Texas at Austin, Current Position: Research Scientist, Chemical and Biochemical Reference Data

Division, National Institute of Standards and Technology, Gaithersburg, Maryland.

2003-2004 Dr. Pooja Shah, PhD, Chemistry, IIT-Delhi, Current Position: Adjunct Faculty, Dallas County Community College (DCCD), Dallas, Texas.

Visiting Scientists

2011 Prof. Eric Furst, University of Delaware, Newark, Delaware
2011 Dr. Frank van Swol, Sandia National Laboratory, Albuquerque, New Mexico
2011 Trond Ingebrigtsen, Roskilde University, Denmark
2006 Dr. Nicholas Braun, Institute of Medical Biology, University of Tromso, Norway

total in progress: 11

Mohammed Kawelah (Johnston and Truskett, Chemical engineering)
Charles "Kofi" Ofosu (Milliron and Truskett, Chemistry)
Tanner Wilcoxson (Truskett and Milliron, Chemical engineering)
Tyla Holoman (Truskett, Chemical engineering)
William Kimball (Johnston and Truskett, Chemical engineering)
Chieh-Chih "George" Yeh (Truskett, Chemical engineering)
Shreyas Sudhaman (Bonnecaze, Chemical engineering)
Joshua Hammond (Korgel and Baldea, Chemical engineering)
Meron Tadesse (Ganesan, Chemical engineering)
Aldaly Pineda Hernandez (Rosales, Chemical engineering)
Marina Wren Berry (Milliron, Chemistry)

Masters thesis reader

2018 Behzad Changalvaie (Johnston, Chemical engineering)
2014 Kyle Hollingshead (Truskett, Chemical engineering)
2005 Dale Simpson (Johnston, Chemical engineering)
2007 Evan Barlow (Mullins, Chemical engineering)

Formal courses taught at University of Texas at Austin

Fall 2002 CHE 353, Transport Phenomena (Instructor rating: 4.7/5.0)
Spring 2002 CHE 353, Transport Phenomena (Instructor rating: 4.7/5.0)
Fall 2003 CHE 353, Transport Phenomena (Instructor rating: 4.8/5.0)
Spring 2004 CHE 384, Theoretical Methods and Soft Matter* (Instructor rating: 4.7/5.0)
Spring 2005 CHE 379, Molecular Driving Forces in Biology* (Instructor rating: 4.8/5.0)
Fall 2005 CHE 253K, Applied Statistics (Instructor rating: 4.5/5.0)
Spring 2006 CHE 339P), Introduction to Biological Physics* (Instructor rating: 4.7/5.0)
Fall 2006 CHE 353, Transport Phenomena (Instructor rating: 4.9/5.0)
Spring 2007 CHE 339P / CHE 384, Introduction to Biological Physics* (Instructor rating: 4.6/5.0)
Fall 2007 CHE 384, Theoretical Methods and Soft Matter* (Instructor rating: 4.3/5.0)

Spring 2008	CHE 339P / CHE 384 Introduction to Biological Physics* (Instructor rating: 4.8/5.0)
Fall 2008	CHE 381N, Fluid Flow and Heat Transfer (Instructor rating: 4.4/5.0)
Spring 2009	CHE 339P / CHE 384, Introduction to Biological Physics* (Instructor rating: 4.7/5.0)
Fall 2009	CHE 381N, Fluid Flow and Heat Transfer (Instructor rating: 4.6/5.0)
Fall 2010	CHE 381N, Fluid Flow and Heat Transfer (Instructor rating: 4.9/5.0)
Spring 2011	CHE 339P / CHE 384, Introduction to Biological Physics* (Instructor rating: 4.6/5.0)
Fall 2011	CHE 381N, Fluid Flow and Heat Transfer (Instructor rating: 4.7/5.0)
Spring 2012	CHE 339P / CHE 384, Introduction to Biological Physics* (Instructor rating: 4.7/5.0)
Fall 2012	CHE 381N, Fluid Flow and Heat Transfer (Instructor rating: 4.8/5.0)
Fall 2013	CHE 102, Introduction to Chemical Engineering (Instructor rating: 4.4/5.0)
Fall 2014	CHE 102, Introduction to Chemical Engineering (Instructor rating: 3.8/5.0)
Fall 2015	CHE 102, Introduction to Chemical Engineering (Instructor rating: 4.2/5.0)
Fall 2016	CHE 102, Introduction to Chemical Engineering (Instructor rating: 4.0/5.0)
Fall 2017	CHE 102, Introduction to Chemical Engineering (Instructor rating: 4.2/5.0)
Fall 2018	CHE 102, Introduction to Chemical Engineering (Instructor rating: 3.9/5.0)
Fall 2019	CHE 102, Introduction to Chemical Engineering (Instructor rating: 3.8/5.0)
Fall 2020	CHE 102, Introduction to Chemical Engineering (Instructor rating: 4.5/5.0)
Fall 2021	CHE 387K, Advanced Thermodynamics (Instructor rating: 4.0/5.0)
Fall 2022	CHE 387K, Advanced Thermodynamics (Instructor rating: 4.5/5.0)
Spring 2023	CHE 354, Unit Ops I: Transport Processes (Instructor rating: 3.4/5.0)
Fall 2023	CHE 387K, Advanced Thermodynamics (Instructor rating: 4.7/5.0)

Service

Membership in professional societies

Member and Fellow, American Physical Society (APS)
Member and Fellow, American Association for the Advancement of Science (AAAS)
Member and Fellow, American Institute of Medical and Biological Engineers (AIMBE)
Senior member, American Institute of Chemical Engineers (AIChE)
Member, American Chemical Society (ACS)

2024-	*Member*, External Advisory Board, Brandeis MRSEC, Brandeis University
2021-	*Consultant*, Fundação para a Ciência e a Tecnologia Project, "Active skyrmions in liquid-crystal-colloid composite media" (PI: Mykola Tasinkevych, Centro de Física Teórica e Computacional, Universidade de Lisboa)
2021-2025	*Senior Member*, External Advisor Board of NIH RM1 "Solvation modeling for next-gen biomolecule simulations" (PI: Ken Dill, Stony Brook)
2021	*Member*, external review panel for MURI - "Blueprint for design and assembly of multifunctional, adaptive materials using the nanocrystal periodic table" (PI: Chris Murray; UPenn, MIT, Michigan)
2020-present	*Member*, External Advisory Board of Department of Chemical Engineering, University of Washington
2019	*Member*, external review panel for the Department of Chemical and Biomolecular Engineering at the University of Delaware
2017-2020	*Member*, Scientific Advisory Board for MICCoM (http://miccom-center.org/), a DOE funded Computational Materials Science (CMS) Center headquartered at Argonne National Laboratory
2017-2020	*Member*, Visiting Committee of Department of Chemical and Biomolecular Engineering,

Case Western University

2015 *Member*, panel selected to interview graduate fellowship applicants for the Vietnam Education Foundation

2014 *Member*, Scientific Organizing Committee for the Soft Matter Group of the American Physical Society

2014- *Member*, Scientific Organizing Committee for the Emerging Technologies section of the National Science Foundation funded UT Austin|Portugal Collaboration

2010-2014 *Member*, Institute Awards Selection Committee for the AIChE

2012-2013 *Member*, Victor K. LaMer Award for Graduate Research in Colloid and Surface Chemistry Selection Committee for the American Chemical Society, Division of Colloid and Surface Chemistry

2011 *Chair*, Alpha Chi Sigma Award Selection Subcommittee for the AIChE

2011 *Member*, Lawrence B. Evans Chemical Engineering Practice Award Selection Subcommittee for the AIChE

2011 *Member*, Industry Research and Development Award Selection Subcommittee for the AIChE

2010 *Chair*, Allan P. Colburn Award Selection Subcommittee for the AIChE

2005-2010 *Member*, Program Committee, AIChE Area 1a: Thermodynamics and Transport Processes

2010 *Member*, Scientific Committee for the National Science Foundation Workshop on Molecular Models for Carbon-Neutral Industrialization, April 9-10, Palm Desert, California

2009-2010 *Member*, Organizing Committee for the 2010 National Academy of Engineering Indo-American Frontiers of Engineering Symposium, March 11-13, 2010, Agra, India

2010 *Member*, 2010 panel selected by the US National Academies to interview graduate fellowship applicants for the Vietnam Education Foundation

Editorial Activities

2022-2023 *Guest editor* (with S. Sarupria and J. Palmer), Pablo G. Debenedetti Festschrift, *The Journal of Physical Chemistry*

2022-2023 *Guest editor* (with R. B. Jadrich and D. J. Milliron), Special Topic, Colloidal Gels, *The Journal of Chemical Physics*

Organization of professional meetings

2025 *Co-organizer* (with Z. Sherman and D. J. Milliron), Symposium, Responsive Colloidal Networks, ACS Spring 2025 National Meeting, American Chemical Society, March, San Diego, California

2023-2024 *Member,* Scientific Advisory Board, FOMMS 2024, Snowbird, Utah.

2023 *Co-organizer* (with Y. Colón and D. J. Milliron), Symposium, Colloidal Networks, ACS Spring 2023 National Meeting, American Chemical Society, August 15, San Francisco, California

2023 *Co-organizer* (with Marjolein Dijkstra and Alberto Perez de Alba Ortiz), Workshop on Designing soft matter in and out of equilibrium, Lorentz Center, University of Leiden, The Netherlands, January 31-Feb 4

2022 *Co-organizer* (with R. B. Jadrich and D. J. Milliron), Symposium, Colloidal Gels, ACS Spring 2022 National Meeting, American Chemical Society, San Diego, March 20, San Diego, California

2015 *Chair*, Focus Session: Clustering and Gelation with Competing Interactions, American

Physical Society March Meeting, March 15, Baltimore, Maryland.

2014 *Chair*, Self Assembly and Self Organization III, Nanoscale Measurements of Novel Materials, International Conference of Nanoscience + Technology, July 22, Vail, Colorado.

2014 *Chair*, Afternoon Session, International Workshop: Viscous Liquids and the Glass Transition XII, at Sominestationen, organized by Roskilde University, Holbaek, Denmark.

2014 *Chair*, Self and Directed Assembly, March Meeting, American Physical Society, March 8, Denver, Colorado.

2014 *Co-Chair*, ACS Award in Applied Polymer Science: Symposium in Honor of Nicholas Peppas, PM Session, American Chemical Society, Spring Meeting, March 19, Dallas, Texas.

2010 *Chair*, Session on Dynamic Arrest in Highly Asymmetric Binary Mixtures, CECAM (Centre Européen de Calcul Atomique et Moléculaire) International Workshop on Complex Dynamics of Fluids in Disordered and Crowded Environments, June 28, Lyon, France.

2010 *Chair*, After Dinner Session, Molecular Dynamics: 1958-, International Workshop: Viscous Liquids and the Glass Transition VIII, at Sominestationen, organized by Roskilde University, Holbaek, Denmark.

2010 *Co-Chair*, Session on High-Performance Computing for Engineering Modeling and Simulation Session, National Academy of Engineering Indo-American Frontiers of Engineering Symposium, Agra, India.

2010 *Discussion leader*, Session on First Principles Modeling at the National Science Foundation Workshop on Molecular Models for Carbon-Neutral Industrialization, April 9-10, Palm Desert, California.

2009 *Chair*, Session on "Water Mediated Interactions" symposium, at the 236th ACS National Meeting in Philadelphia, Pennsylvania.

2008 *Co-Chair* (w/ C. O'Hern), Session on Polymer Collapse and Protein Folding, Focus Session, American Physical Society March Meeting, New Orleans, Louisiana.

2008 *Co-Chair* (w/ M. S. Shell), Symposium: Thermodynamics in chemical engineering: prospects and perspectives, Joint American Chemical Society / Spring AIChE National Meeting, New Orleans, Louisiana.

2008 *Co-organizer* (w/ J. Ekerdt), Materials and Complex Fluids Workshop: Self-Assembly, UT Austin, Austin, Texas.

2007 *Co-Chair*, Session on Thermodynamics of Protein Folding and Aggregation, AIChE Annual Meeting, Salt Lake City, Utah.

2007 *Co-Chair*, Session on Thermodynamics Under Confinement, AIChE Annual Meeting, Salt Lake City, Utah.

2007 *Co-organizer* (w/ J. Ekerdt), Materials and Complex Fluids Workshop: Smart Materials, UT Austin, Austin, Texas.

2006 *Chair*, Session on Supercooled Liquids and Glasses, AIChE Annual Meeting, San Francisco, California.

2006 *Program Coordinator*, Area 1a: Thermodynamics and Transport Processes, AIChE Spring National Meeting, Orlando, Florida.

2006 *Vice-Chair*, Session on Thermodynamics and Phase Equilibria, AIChE Spring National Meeting, Orlando, Florida.

2006 *Chair*, Session on Thermodynamics and Phase Equilibria II, AIChE Spring National Meeting, Orlando, Florida.

2005 *Chair*, Session on Thermophysical Properties of Biological Systems II, AIChE Annual Meeting, Cincinnati, Ohio.

2005 *Chair*, Session on Supercooled Liquids and Glasses, AIChE Annual Meeting, Cincinnati, Ohio.

2004 *Vice-Chair*, Session on Supercooled Liquids and Glasses, AIChE Annual Meeting, Austin, Texas.

2003 *Chair*, Session on Thermodynamics of Aqueous and Ionic Systems, AIChE Annual Meeting, San Francisco, California.

2002 *Co-organizer* (w/ S. Garde), Water in Novel and Biological Environments, Two-day symposium, Division of Colloid and Surface Chemistry, ACS National Meeting, Philadelphia, Pennsylvania.

2002 *Vice-Chair*, Session on Thermodynamic Properties and Phase Behavior I, AIChE Annual Meeting, Indianapolis, Indiana.

2002 *Vice-Chair*, Session on Thermodynamic Properties and Phase Behavior III, AIChE Annual Meeting, Indianapolis, Indiana.

2001 *Vice-Chair*, Session on Thermodynamics of Aqueous and Ionic Systems, AIChE Annual Meeting, Reno, Nevada.

Biographical information

Thomas M. Truskett is the Dick Rothwell Endowed Chair in Chemical Engineering and Professor of Chemical Engineering and Physics at the University of Texas at Austin. He earned a bachelor of science in chemical engineering from the University of Texas at Austin in 1996 and a doctoral degree in chemical engineering from Princeton University in 2001, where he studied statistical mechanics of the liquid state, the glass transition, and physics of disordered media. He pursued post-doctoral research at the University of California, San Francisco, where he investigated water, hydrophobic interactions, and modeling of biomolecular systems. In 2002, he joined the faculty of the University of Texas at Austin and served as Department Chair of Chemical Engineering from 2013-2021. Dr. Truskett's research group explores how interfaces and confinement impact the behavior of soft matter, including molecular fluids, colloidal suspensions, protein solutions, and glassy solids.