LYNNE S. TAYLOR

Retter Distinguished Professor of Pharmacy Department of Industrial and Physical Pharmacy Purdue University 575 Stadium Mall Drive West Lafayette, IN 47907 <u>lstaylor@purdue.edu</u>

EMPLOYMENT HISTORY

07/22-present	Retter Distinguished Professor of Pharmacy, Department of Industrial and Physical Pharmacy, Purdue University
12/15-06/22	Retter Professor of Pharmacy, Department of Industrial and Physical Pharmacy, Purdue University
08/12-12/15	Professor of Industrial and Physical Pharmacy, Purdue University
08/10-07/2016	Director of Industrial and Physical Pharmacy Graduate Program
08/07-08/12:	Associate Professor of Industrial and Physical Pharmacy, Purdue University
01/03-07/07:	Assistant Professor of Industrial and Physical Pharmacy, Purdue University
1998-2003:	AstraZeneca, Associate Principal Scientist
1996-1998	Postdoctoral Research Associate, University of Wisconsin, Madison,
1992-1993	Teaching Assistant, University of Bradford, Bradford, UK
1990-1991	Pre-registration Pharmacist

EDUCATION

1992-1996 Doctor of Philosophy, University of Bradford, UK

Doctor of Philosophy Degree. Thesis title "Characterisation of Protein-Carbohydrate Systems".

1987 - 1990 Bachelor of Pharmacy, University of Bath, UK. First Class honours degree.

PROFESSIONAL EXPERIENCE/SERVICE

Editor-in-Chief, *Molecular Pharmaceutics*. Member of Editorial Advisory Board for Journal of Pharmaceutical Sciences, and Pharmaceutical Development and Technology.

Scientific Advisory Board Member for the Synthesis and Solid State Pharmaceutical Center, the largest research collaboration in Ireland in the pharmaceutical area.

Scientific Advisory Committee for IPEC Americas Foundation.

Guest Editor for the Journal of Pharmaceutical Sciences. Special Edition for Professor Stephen Byrn (2010), Special Edition for Professor George Zografi (2014). Special Edition for Professor Peter York (2017).

Proposal reviewer for the National Institutes of Health, the National Science Foundation, the Food and Drug Administration, the American Association of Colleges of Pharmacy, the American Association of Pharmaceutical Scientists Foundation, Science Foundation Ireland, Estonian Science Foundation, Finnish Academy of Sciences and others.

Past reviewer for AAPS Fellows nominations, PBB section of AAPS, AAPS Wurster Award reviewer.

Past Site Director. NSF funded Engineering Research Center on Structured Organic Composite Systems.

External thesis reviewer for various universities in Australia, Canada, India, Singapore, Denmark and Finland.

PROFESSIONAL AFFLIATIONS

American Chemical Society American Association of Pharmaceutical Scientists American Pharmacists Association Royal Society of Chemistry Society for Applied Spectroscopy

HONORS and AWARDS

2022 Alice E. Till Advancement of Women in Pharmaceutical Sciences Recognition

2022 Appointed Retter Distinguished Professor of Pharmacy

2020 Dale E. Wurster Research Award

2019 Provost's Award for Outstanding Graduate Mentor

- 2018 Appointed Editor-in-Chief of Molecular Pharmaceutics
- 2017 AIChE Section 15b Plenary Award

2016 Appointed Retter Professor of Pharmacy

2014 Chaney Faculty Scholar Award

2014 Coblentz Society Craver Award in Applied Vibrational Spectroscopy

2012 Fellow of the American Association of Pharmaceutical Scientists

2012 AAPS Pharmaceutical Research Meritorious Manuscript Award

2012 Ebert Prize (Best paper in the Journal of Pharmaceutical Sciences)

2011-2012 Faculty in Second Discipline Fellow, Purdue University

2011 AstraZeneca Visiting Fellow, School of Chemical Engineering and Analytical Science, University of Manchester, United Kingdom

2010 Fellow of the Royal Society of Chemistry, United Kingdom

2010 College of Engineering Team Excellence Award, Purdue University

2008-2009 Entrepreneurial Leadership Academy Fellow, Purdue University

2009-2014 Faculty Scholar, Purdue University

2008 Outstanding Manuscript in Pharmaceutical Analysis and Quality, American Association of Pharmaceutical Scientists

2003 New Investigator Award, American Association of Pharmaceutical Scientists

2003 New Investigator Grant, American Association of Colleges of Pharmacy

PUBLICATIONS

Peer Reviewed Articles

- Dimiou, S.; McCabe, J.; Booth, R.; Booth, J.; Nidadavole, K.; Svensson, O.; Sparén, A.; Lindfors, L.; Paraskevopoulou, V.; Mead, H.; Coates, L.; Workman, D.; Martin, D.; Treacher, K.; Puri, S.; Taylor, L. S.; Yang, B., (2023) Selecting Counterions to Improve Ionized Hydrophilic Drug Encapsulation in Polymeric Nanoparticles. Molecular Pharmaceutics. Accepted
- 2. Hiew, T. N.; Saboo, S.; Zemlyanov, D. Y.; Punia, A.; Wang, M.; Smith, D.; Lowinger, M.; Solomos, M. A.; Schenck, L.; Taylor, L. S., (2023). Improving Dissolution Performance and Drug Loading of Amorphous Dispersions Through a Hierarchical Particle Approach. Journal of Pharmaceutical Sciences. Accepted
- 3. Deac, A., Qi, Q., Indulkar, A.S., Purohit, H.S., Gao, Y., Zhang, G.G. and Taylor, L.S., (2023). Dissolution Mechanisms of Amorphous Solid Dispersions: Role of Drug Load and Molecular Interactions.(2023) Molecular Pharmaceutics. 20(1):722-737.
- 4. Moseson, D.E., Benson, E.G., Cao, Z., Bhalla, S., Wang, F., Wang, M., Zheng, K., Narwankar, P.K., Simpson, G.J. and Taylor, L.S.,(2023). Impact of Aluminum Oxide Nanocoating on Drug Release from Amorphous Solid Dispersion Particles. Molecular Pharmaceutics. 20(1):593-605.
- 5. Yang, R., Zhang, G.G., Purohit, H.S. and Taylor, L.S., (2023). Release mechanisms of amorphous solid dispersions: Role of drug-polymer phase separation and morphology. Journal of Pharmaceutical Sciences. 112(1):304-317.
- 6. Moseson, D.E., Hiew, T.N., Su, Y. and Taylor, L.S., (2023). Formulation and Processing Strategies which Underpin Susceptibility to Matrix Crystallization in Amorphous Solid Dispersions. Journal of Pharmaceutical Sciences. 112(1):108-122.
- 7. Hiew, T. N. and Taylor, L. S. (2022). Combining drug salt formation with amorphous solid dispersions a double edged sword. Journal of Controlled Release. 353:47-60.
- 8. Moseson, D.E., Benson, E.G., Nguyen, H.T., Wang, F., Wang, M., Zheng, K., Narwankar, P.K. and Taylor, L.S. (2022). Atomic Layer Coating to Inhibit Surface

Crystallization of Amorphous Pharmaceutical Powders. ACS Applied Materials & Interfaces, 14(36):40698-40710.

- 9. Correa Soto, C.E., Gao, Y., Indulkar, A.S., Zhang, G.G. and Taylor, L.S. (2022). Role of Surfactants in Improving Release from Higher Drug Loading Amorphous Solid Dispersions. International Journal of Pharmaceutics. 625:122120.
- Sabra, R., Narula, A., Taylor, L.S. and Li, N. (2022). Comparisons of in Vitro Models to Evaluate the Membrane Permeability of Amorphous Drug Nanoparticles. Molecular Pharmaceutics. 19(9):3412-3428.
- 11. Qi, Q. and Taylor, L.S. (2022). Improved Dissolution of an Enteric Polymer and its Amorphous Solid Dispersions by Polymer Salt Formation. International Journal of Pharmaceutics. 622:121886.
- Novo, D.C., Gao, C., Qi, Q., Mosquera-Giraldo, L.I., Spiering, G.A., Moore, R.B., Taylor, L.S. and Edgar, K.J. (2022). Designing synergistic crystallization inhibitors: Bile salt derivatives of cellulose with enhanced hydrophilicity. Carbohydrate Polymers, 292:119680.
- Razumtcev, A., Li, M., Rong, J., Teng, C.C., Pfluegl, C., Taylor, L.S. and Simpson, G.J., 2022. Label-Free Autofluorescence-Detected Mid-Infrared Photothermal Microscopy of Pharmaceutical Materials. Analytical Chemistry, 94(17):6512-6520.
- Hate, S.S., Mosquera-Giraldo, L.I. and Taylor, L.S. (2022). A Mechanistic Study of Drug Mass Transport from Supersaturated Solutions Across PAMPA Membranes. Journal of Pharmaceutical Sciences, 111(1):102-115.
- Chen, Y.C., Moseson, D.E., Richard, C.A., Swinney, M.R., Horava, S.D., Oucherif, K.A., Cox, A.L., Hawkins, E.D., Li, Y., DeNeve, D.F. and Lomeo, J., Zhou, A., Lyle, T. L., Munson, E. J., Taylor, L.S., Park, K. and Yeo, Y. (2022). Development of hotmelt extruded drug/polymer matrices for sustained delivery of meloxicam. Journal of Controlled Release. 342:189-200.
- Indulkar, A.S., Lou, X., Zhang, G.G. and Taylor, L.S. (2022). Role of Surfactants on Release Performance of Amorphous Solid Dispersions of Ritonavir and Copovidone. Pharmaceutical Research, 39(2):381-397.
- Van Duong, T., Ni, Z. and Taylor, L.S., (2022). Phase Behavior and Crystallization Kinetics of a Poorly Water-Soluble Weakly Basic Drug as a Function of Supersaturation and Media Composition. Molecular Pharmaceutics.19(4):1146-1159.
- Yang, R., Zhang, G.G., Kjoller, K., Dillion, E., Purohit, H.S. and Taylor, L.S., (2022). Phase separation in surfactant-containing amorphous solid dispersions: orthogonal analytical methods to probe the effects of surfactants on morphology and phase composition. International Journal of Pharmaceutics. 619:121708.
- Van Duong, T., Nguyen, H.T. and Taylor, L.S., (2022). Combining enabling formulation strategies to generate supersaturated solutions of delamanid: in situ salt formation during amorphous solid dispersion fabrication for more robust release profiles. European Journal of Pharmaceutics and Biopharmaceutics. 174:131-143.

- 20. Hiew, T.N., Zemlyanov, D.Y. and Taylor, L.S., (2022). Balancing solid-state stability and dissolution performance of lumefantrine amorphous solid dispersions: the role of polymer choice and drug–polymer interactions. Molecular Pharmaceutics. 19(2):392-413.
- Van Duong, T., Nguyen, H.T., Wang, F., Wang, M., Narwankar, P.K. and Taylor, L.S., (2022). Surface nanocoating of high drug-loading spray-dried amorphous solid dispersions by atomic layer coating: Excellent physical stability under accelerated storage conditions for two years. International Journal of Pharmaceutics. 620:121747.
- 22. Moseson, D.E., Eren, A., Altman, K.J., Corum, I.D., Li, M., Su, Y., Nagy, Z.K. and Taylor, L.S., (2022) Optimization of Amorphization Kinetics during Hot Melt Extrusion by Particle Engineering: An Experimental and Computational Study. Crystal Growth & Design. 22(1):821-841.
- 23. Alvarenga Jr, B.R.D., Moseson, D.E., Carneiro, R.L. and Taylor, L.S., (2022). Impact of Polymer Type on Thermal Degradation of Amorphous Solid Dispersions Containing Ritonavir. Molecular Pharmaceutics. 19(1):332-344.
- Correa Soto, C., Gao, Y., Indulkar, A. S., Ueda, K., Zhang, G. G. Z., and Taylor, L. S. (2022). Impact of Surfactants on the Performance of Clopidogrel-Copovidone Amorphous Solid Dispersions: Increased Drug Loading and Stabilization of Nanodroplets. Pharmaceutical Research. 39:167-188.
- 25. Ueda, K., Higashi, K., Moribe, K. and Taylor, L.S., (2022). Variable-Temperature NMR Analysis of the Thermodynamics of Polymer Partitioning between Aqueous and Drug-Rich Phases and Its Significance for Amorphous Formulations. Molecular Pharmaceutics. 19(1),:100–114.
- Li, M., Razumtcev, A., Yang, R., Liu, Y., Rong, J., Geiger, A. C., Blanchard, R., Pfluegl, C., Taylor, L. S., Simpson, G. J. (2021). Fluorescence-Detected Mid-Infrared Photothermal Microscopy. Journal of the American Chemical Society. 143(29): 10809-10815.
- Bhujbal, S.V., Mitra, B., Jain, U., Gong, Y., Agrawal, A., Karki, S., Taylor, L.S., Kumar, S. and Zhou, Q.T., 2021. Pharmaceutical amorphous solid dispersion: A review of manufacturing strategies. Acta Pharmaceutica Sinica B, 11(8): 2505-2536.
- Que, C., Deac, A., Zemlyanov, D.Y., Qi, Q., Indulkar, A.S., Gao, Y., Zhang, G.G. and Taylor, L.S. (2021). Impact of Drug–Polymer Intermolecular Interactions on Dissolution Performance of Copovidone-Based Amorphous Solid Dispersions. *Molecular Pharmaceutics*, 18(9):3496-3508.
- Abouselo, A., Rance, G.A., Tres, F., Taylor, L.S., Kwokal, A., Renou, L., Scurr, D.J., Burley, J.C. and Aylott, J.W. (2021). Effect of Excipients on Salt Disproportionation during Dissolution: A Novel Application of In Situ Raman Imaging. *Molecular Pharmaceutics*, 18(9):3247-3259.
- 30. Yang, R., Mann, A.K., Van Duong, T., Ormes, J.D., Okoh, G.A., Hermans, A. and Taylor, L.S. (2021). Drug Release and Nanodroplet Formation from Amorphous Solid

Dispersions: Insight into the Roles of Drug Physicochemical Properties and Polymer Selection. Molecular Pharmaceutics. 18(5):2066-2081.

- 31. Elkhabaz, A., Moseson, D.E., Sarkar, S., Brouwers, J., Simpson, G.J., Augustijns, P. and Taylor, L.S. (2021). Crystallization Kinetics in Fasted-State Simulated and Aspirated Human Intestinal Fluids. Crystal Growth & Design. 21(5):2807-2820.
- 32. Saboo, S., Bapat, P., Moseson, D. E., Kestur, U. S., Taylor, L. S. (2021). Exploring the Role of Surfactants in Enhancing Drug Release from Amorphous Solid Dispersions at Higher Drug Loadings. Pharmaceutics. 13(5): 735.
- Bhujbal, S. V., Pathak, V., Zemlyanov, D. Y., Taylor, L. S., Zhou, Q. (2021) Physical Stability and Dissolution of Lumefantrine Amorphous Solid Dispersions Produced by Spray Anti-Solvent Precipitation. Journal of Pharmaceutical Sciences. 110(6):2423-2431.
- Chen, Y., Ling, J., Li, M., Su, Y., Arte, K. S., Mutukuri, T. T., Taylor, L. S., Munson, E. J., Topp, E. M., Zhou, Q. T. (2021). Understanding the Impact of Protein–Excipient Interactions on Physical Stability of Spray-Dried Protein Solids. Molecular Pharmaceutics 18(7):2657-2668.
- 35. Moseson, D. E., Corum, I. D., Lust, A., Altman, K. J., Hiew, T. N., Eren, A., Nagy, Z. K., and Taylor. L. S. (2021) Amorphous Solid Dispersions Containing Residual Crystallinity: Competition Between Dissolution and Matrix Crystallization. The AAPS Journal 23(4):1-18
- 36. Bhujbal, S. V, Su, Y., Pathak, V., Zemlyanov, D. Y. Cavallaro, A. A., Munson, E. J., Taylor, L. S., and Zhou, Q. T. (2021) Effect of Storage Humidity on Physical Stability of Spray-Dried Naproxen Amorphous Solid Dispersions with Polyvinylpyrrolidone: Two Fluid Nozzle vs. Three Fluid Nozzle. Pharmaceutics 13(7):1074.
- 37. Voelker, A.L., Taylor, L. S. and Mauer, L. J. (2021). Effect of pH and concentration on the chemical stability and reaction kinetics of thiamine mononitrate and thiamine chloride hydrochloride in solution. BMC chemistry 15(1): 1-14
- Parker, A. P., Taylor, L.S., and Beaudoin, S. P. (2021) Polymer effects on crystallization at the amorphous atazanavir-water interface. Journal of Crystal Growth 571:126254
- Pepin, X. J. H., Dressman, J., Parrott, N., Delvadia, P., Mitra, A., Zhang, X., Babiskin, A., Kolhatkar, V., Seo, P., Taylor, L. S., Sjogren, E., Butler, J. M., Kostewicz, E., Tannergren, C., Koziolek, M., Kesisoglou, F., Dallmann, A., Zhao, Y., Suarez-Sharp, S. (2021). In Vitro Biopredictive Methods: A Workshop Summary Report. Journal of Pharmaceutical Sciences. 110(2):567-583.
- 40. Voelker, A.L., Taylor, L. S. and Mauer, L. J. (2021). Chemical stability and reaction kinetics of thiamine mononitrate in the aqueous phase of bread dough. Food Research International. 140: 110084.
- 41. Wilson, V.R., Mugheirbi, N.A., Mosquera-Giraldo, L.I., Deac, A., Moseson, D.E., Smith, D.T., Novo, D.C., Borca, C.H., Slipchenko, L.V., Edgar, K.J. and Taylor, L.S.

(2021). Interaction of Polymers with Enzalutamide Nanodroplets—Impact on Droplet Properties and Induction Times. Molecular Pharmaceutics. 18(3): 836–849.

- 42. Ueda, K., and Taylor, L. S. (2021). Partitioning of surfactant into drug-rich nanodroplets and its impact on drug thermodynamic activity and droplet size. Journal of Controlled Release. 330: 229-243.
- Voelker, A.L., Felton. C., Taylor, L. S. and Mauer, L. J. (2021). Effects of polyphenols on crystallization of amorphous sucrose lyophiles. Food Chemistry. 338: 128061.
- Ueda, K., Moseson, D. E., Pathak, V., and Taylor, L. S. (2021). Effect of Polymer Species on Maximum Aqueous Phase Supersaturation Revealed by Quantitative Nuclear Magnetic Resonance Spectroscopy. Molecular Pharmaceutics. 18(3):1344– 1355.
- 45. Mutukuri, T. T., Wilson, N. E., Taylor, L. S., Topp, E. M., Zhou, Q. T. (2021). Effects of drying method and excipient on the structure and physical stability of protein solids: Freeze drying vs. spray freeze drying. International Journal of Pharmaceutics. 594:20169.
- Moseson, D. E., Jordan, M. A., Shah, D. D., Corum, I. D., Alvarenga, B. R., Jr., Taylor, L. S. (2020). Application and limitations of thermogravimetric analysis to delineate the hot melt extrusion chemical stability processing window. International Journal of Pharmaceutics. 590:119916.
- Li, N., Cape, J. L., Mankani, B. R., Zemlyanov, D. Y., Shepard, K. B., Morgen, M. M., Taylor, L. S. (2020) Water-Induced Phase Separation of Spray-Dried Amorphous Solid Dispersions. Molecular Pharmaceutics. 17(10):4004-4017.
- Arioglu-Tuncil, S., Voelker, A. L., Taylor, L. S., Mauer, L. J., (2020). Amorphization of Thiamine Mononitrate: A Study of Crystallization Inhibition and Chemical Stability of Thiamine in Thiamine Mononitrate Amorphous Solid Dispersions. International Journal of Molecular Science. 21(24):9370.
- 49. Arioglu-Tuncil, S., Voelker, A. L., Taylor, L. S., Mauer, L. J. (2020). Amorphization of Thiamine Chloride Hydrochloride: Effects of Physical State and Polymer Type on the Chemical Stability of Thiamine in Solid Dispersions. International Journal of Molecular Science. 21(16):5935.
- Hate, S. S., Reutzel-Edens, S. M., and Taylor, L. S. (2020). Influence of Drug-Silica Electrostatic Interactions on Drug Release from Mesoporous Silica-Based Oral Delivery Systems. Molecular Pharmaceutics. 17(9):3435-3446.
- Zhu, C., Chen, J., Yu, S., Que, C., Taylor, L. S., Tan, W., Wu, C, Zhou, Q. R. (2020). Inhalable nano-composite microparticles with enhanced dissolution and superior aerosol performance. Molecular Pharmaceutics. 17(9):3270-3280.
- 52. Saboo, S., Moseson, D. E., Kestur, U. S., Taylor, L. S. (2020). Patterns of drug release as a function of drug loading from amorphous solid dispersions: A comparison of five different polymers. European Journal of Pharmaceutical Sciences. 155:105514

- 53. Wilson, V., Lou, X., Osterling, D. J., Stolarik, D. F., Jenkins, G. J., Nichols, B., Dong, Y., Edgar, K. J., Zhang, G. G. Z., and Taylor, L. S. (2020) Amorphous Solid Dispersions of Enzalutamide and Novel Polysaccharide Derivatives: Investigation of Relationships between Polymer Structure and Performance. Scientific Reports. 10(1): 1-12.
- 54. Hate, S. S., Reutzel-Edens, S. M., and Taylor, L. S. (2020). Interplay of Adsorption, Supersaturation and the Presence of an Absorptive Sink on Drug Release from Mesoporous Silica-Based Formulations. Pharmaceutical Research. 37(8):1-18.
- 55. McCarthy, C. A., Zemlyanov, D., Crean, A. M., Taylor, L. S. (2020). Comparison of Drug Release and Adsorption Under Supersaturating Conditions for Ordered Mesoporous Silica with Indomethacin or Indomethacin Methyl Ester. Molecular Pharmaceutics. 17(8): 3062–3074.
- 56. Enright, E. F., Joyce, S. A., Gahan, C. G. M., Taylor, L. S. (2020) Impact of phospholipid digests and bile acid pool variations on the crystallization of atazanavir from supersaturated solutions. European Journal of Pharmaceutics and Biopharmaceutics. 153: 68-83.
- 57. Ueda, K., Hate, S. S., and Taylor, L. S. (2020). Impact of hypromellose acetate succinate grade on drug amorphous solubility and in vitro membrane transport Journal of Pharmaceutical Sciences. 109(8): 2464-2473.
- 58. Trasi, N. S., Bhujbal, S.V., Zhou, Q. T., and Taylor, L. S. (2020). Physical Stability and Release Properties of Lumefantrine Amorphous Solid Dispersion Granules Prepared by a Simple Solvent Evaporation Approach. International Journal of Pharmaceutical Sciences X, 100052.
- 59. Ueda, K., and Taylor, L. S. (2020). Polymer type impacts amorphous solubility and drug-rich phase colloidal stability: A mechanistic study using nuclear magnetic resonance spectroscopy. Molecular Pharmaceutics. 17(4):1352-1362.
- 60. Saboo, S. S., Kestur, U. S., Flaherty, D. P., Taylor, L. S. (2020) Congruent release of drug and polymer from amorphous solid dispersions: insights into the role of drug-polymer hydrogen bonding, surface crystallization and glass transition. Molecular Pharmaceutics. 17(4): 1261–1275.
- Que, C., Qi, Q., Zemlyanov, D. Y., Mo, H., Deac, A., Zeller, M., Indulkar, A. S., Gao, Y., Zhang, G. G. Z., and Taylor, L. S. (2020). Evidence for Halogen Bonding in Amorphous Solid Dispersions. Crystal Growth and Design. 20 (5): 3224–3235.
- 62. Parker, A. S., Taylor, L. S., and Beaudoin, S. P. (2020). The Role of Surface Energy Heterogeneity on Crystal Morphology during Solid-State Crystallization at the Amorphous Atazanavir-Water Interface. CrysEngComm. 22, 3179-3187.
- 63. Moseson, D.E., Parker, A.S., Beaudoin, S.P., and Taylor, L.S., (2020) Amorphous Solid Dispersions Containing Residual Crystallinity: Influence of Seed Properties and Polymer Adsorption on Dissolution Performance. European Journal of Pharmaceutical Sciences. 146: 105276.

- 64. Hate, S. S., Reutzel-Edens, S. M., and Taylor, L. S. (2020). Absorptive dissolution testing: An improved approach to study the impact of residual crystallinity on the performance of amorphous formulations. Journal of Pharmaceutical Sciences. 109(3): 1312-1323.
- Wilson, N.E., Mutukuri, T.T., Zemlyanov, D.Y., Taylor, L. S., Topp, E.M., Zhou, Q. T. (2020). Surface Composition and Formulation Heterogeneity of Protein Solids Produced by Spray Drying Pharmaceutical Research. 37(1):14.
- Sherman, A. M., Geiger, A. C., Smith, C., Taylor, L. S. Hinds, J., Stroud, P., Simpson, G. J. (2020). Stochastic Differential Scanning Calorimetry by Nonlinear Optical Microscopy. Analytical Chemistry. 92(1): 1171-1178.
- Indulkar, A. S., Raina, S. A., Gao, Y., Zhang, G. G. Z., and Taylor, L. S. (2020). Impact of monomeric vs. micellar surfactant and surfactant-polymer interactions on nucleation-induction times of atazanavir from supersaturated solutions. Crystal Growth and Design. 20(1):62-72.
- Trasi, N. S., Bhujbal, S.V., Zhou, Q. T., and Taylor, L. S. (2019). Amorphous Solid Dispersion Formation via Solvent Granulation – A Case Study with Ritonavir and Lopinavir. International Journal of Pharmaceutics. X 1, 100035.
- Que, C., Lou, X., Zemlyanov, D. Y., Mo, H., Indulkar, A. S., Gao, Y., Zhang, G. G. Z. and Taylor, L. S. (2019). Insights into the Dissolution Behavior of Ledipasvir-Copovidone Amorphous Solid Dispersions: Role of Drug Loading and Intermolecular Interactions. Molecular Pharmacuetics. 16(12):5054-5067.
- Elkhabaz, A., Moseson, D. E., Brouwers, J., Augustijns, P., and Taylor, L.S. (2019) Interplay of supersaturation and solubilization: Lack of correlation between concentration-based supersaturation measurements and membrane transport rates in simulated and aspirated human fluids. Molecular Pharmaceutics. 16 (12):5042-5053.
- 71. Elkhabaz, A., Sarkar, S., Simpson, G. J., and Taylor, L.S. (2019). Characterization of Phase Transformations for Amorphous Solid Dispersions of a Weakly Basic Drug upon Dissolution in Biorelevant Media. Pharmaceutical Research. 36 (12), 174.
- 72. Tres, F., Posada, M. M., Hall, S. D., Mohutsky, M. A., and Taylor, L. S. (2019). The Effect of Promiscuous Aggregation on *In Vitro* Drug Metabolism Assays. Pharmaceutical Research. 36 (12), 170.
- Dong, Y., Novo, D.C., Mosquera-Giraldo, L.I., Taylor, L.S., Edgar, K.J., 2019. Conjugation of bile esters to cellulose by olefin cross-metathesis: A strategy for accessing complex polysaccharide structures. Carbohydrate Polymers 221, 37-47.
- Voelker, A.L., Verbeek, G., Taylor, L. S. and Mauer, L. J. (2019) Effects of emulsifiers on the moisture sorption and crystallization of amorphous sucrose lyophiles. Food Chemistry. 3:100050.
- 75. Purohit, H.S., Trasi, N.S., Osterling, D.J., Stolarik, D.F., Jenkins, G.J., Gao, W., Zhang, G.G.Z., Taylor, L.S. (2019). Assessing the Impact of Endogenously Derived

Crystalline Drug on the in Vivo Performance of Amorphous Formulations. Molecular Pharmaceutics. 16(8):3617-3625.

- 76. Dening, T.J., Zemlyanov, D., Taylor, L.S. (2019). Application of an adsorption isotherm to explain incomplete drug release from ordered mesoporous silica materials under supersaturating conditions. Journal of Controlled Release. 307:186-199.
- Moseson, D.E., Parker, A.S., Gilpin, C.J., Stewart, A.A., Beaudoin, S.P., Taylor, L.S., (2019). Dissolution of Indomethacin Crystals into a Polymer Melt: Role of Diffusion and Fragmentation. Crystal Growth & Design 19:3315-3328.
- 78. Mauer, L. J., Forny, L., Meunier, V., and Taylor, L. S. (2019). Optimizing the quality of dry ingredient blends and powder products: the challenges of moisture-mediated phase transformations. Annual Review of Food Science and Technology. 10:457-478.
- Li, N., and Taylor, L.S. (2019). Microstructure Formation for Improved Dissolution Performance of Lopinavir Amorphous Solid Dispersions. Molecular Pharmaceutics. 16 (4), 1751-1765.
- Indulkar, A. S., Lou, X., Zhang, G. G. Z., and Taylor, L. S. (2019). Insights into the dissolution mechanism of ritonavir-copovidone amorphous solid dispersions: importance of congruent release for enhanced performance. Molecular Pharmaceutics. 16(3):1327-1339.
- Saboo, S., Mugheirbi, N. A., Zemlyanov, D.Y., Kestur, U. S., and Taylor, L. S. (2019). Congruent release of drug and polymer: A "sweet spot" in the dissolution of amorphous solid dispersions. Journal of Controlled Release. 298:68-82.
- Hate, S. S., Reutzel-Edens, S. M., and Taylor, L. S. (2019). Insight into Amorphous Solid Dispersion Performance by Coupled Dissolution and Membrane Mass Transfer Measurements. Molecular Pharmaceutics. 16(1):448-461.
- Thorat, A. A., Forny, L., Meunier, V., Taylor, L. S., and Mauer, L. J. (2018). Effects of Mono-, Di-, and Tri-saccharides on the Stability and Crystallization of Amorphous Sucrose. Journal of Food Science. 83(11):2827-2839.
- Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G. G. Z., and Taylor, L. S.(2018). Crystallization from supersaturated solutions: Role of lecithin and composite simulated intestinal fluid. Pharmaceutical Research. 35(8):158.
- Hsu, H., Taylor, L. S., and Harris, M. T. (2018) Impact of Additives on Heterogeneous Crystallization of Acetaminophen. International Journal of Chemical Engineering. 2018:1-7.
- Wilson, V. Lou, X., Osterling, D. J., Stolarik, D. F., Jenkins, G., Gao, W., Zhang, G. G. Z., and Taylor, L. S. (2018). Relationship between amorphous solid dispersion In Vivo absorption and In Vitro dissolution: phase behavior during dissolution, speciation, and membrane mass transport. Journal of Controlled Release. 292:172-182.

- Mosquera-Giraldo, L. I., Borca, C. H., Parker, A. S., Dong, Y., Edgar, K. J., Beaudoin, S. P., Slipchenko, L.V, and Taylor, L. S. (2018). Crystallization Inhibition Properties of Cellulose Esters and Ethers for a Group of Chemically Diverse Drugs -Experimental and Computational Insight. Biomacromolecules. 19(12):4593-4606.
- Moseson, D. E., Mugheirbi, N. A., Stewart, A. A., and Taylor, L. S. (2018) Nanometer-Scale Residual Crystals in a Hot Melt Extruded Amorphous Solid Dispersion: Characterization by Transmission Electron Microscopy. Crystal Growth and Design. 18(12):7633-7640.
- 89. Moseson, D. E. and Taylor, L. S. (2018). The application of temperature-composition phase diagrams for hot melt extrusion processing of amorphous solid dispersions to prevent residual crystallinity. International Journal of Pharmaceutics. 553(1-2):454-466.
- Patel, M. A., Luthra, S., Shamblin, S. L., Arora, K., Krzyzaniak, J. F., and Taylor, L. S. (2018). Assessing the risk of salt disproportionation using crystal structure and surface topography analysis. Crystal Growth and Design. 18(11):7027-7040.
- 91. Mugheirbi, N. A., Mosquera-Giraldo, L. I., Borca, , Slipchenko, L.V, and Taylor, L. S. (2018). Phase Behavior of Drug-Hydroxypropyl Methylcellulose Amorphous Solid Dispersions Produced from Various Solvent Systems: Mechanistic Understanding of the Role of Polymer using Experimental and Theoretical Methods. Molecular Pharmaceutics. 15(8):3236-3251.
- Arca, H., C., Bi, V., Mosquera-Giraldo, L. I., Xu, D., Taylor, L. S., and Edgar, K. J. (2018). Pharmaceutical Applications of Cellulose Ethers and Cellulose Ether Esters. Biomacromolecules. 19(7):2351-2376
- Dening, T. J., and Taylor, L. S. (2018) Supersaturation Potential of Ordered Mesoporous Silica Delivery Systems. Part 1: Dissolution Performance and Drug Membrane Transport Rates. Molecular Pharmaceutics. 15(8):3489-3501.
- 94. Voelker, A., Miller, J., Running, C.A., Taylor, L. S. and Mauer, L. J. (2018). Chemical stability and reaction kinetics of two thiamine salts (thiamine mononitrate and thiamine chloride hydrochloride) in solution. Food Research International. 112:443-456.
- 95. Bhujbal, S.V., Zemlyanov, D.Y., Cavallaro, A., Mangal, S., Taylor, L. S. and Zhou, Q. T. (2018). Qualitative and Quantitative Characterization of Composition Heterogeneity on the Surface of Spray Dried Amorphous Solid Dispersion Particles by an Advanced Surface Analysis Platform with High Surface Sensitivity and Superior Spatial Resolution. Molecular Pharmaceutics. 15(5):2045-2053
- 96. Mosquera-Giraldo, L. I., Li, N., Wilson, V. R., Nichols, B. L. B., Edgar, K. J., and Taylor, L. S. (2018). Influence of Polymer and Drug Loading on the Release Profile and Membrane Transport of Telaprevir. Molecular Pharmaceutics. 15(4):1700-1713.
- 97. Sugihara, H. and Taylor, L. S. (2018) Evaluation of Pazopanib Phase Behavior Following pH-Induced Supersaturation. Molecular Pharmaceutics. 15(4):1690-1699.

- Patel, M. A., Luthra, S., Shamblin, S. L., Arora, K., Krzyzaniak, J. F., and Taylor, L. S. (2018).Effect of excipient properties, water activity, and water content on the disproportionation of a pharmaceutical salt. International Journal of Pharmaceutics. 546 (1-2): 226-234.
- Tres, F., Posada, M. M., Hall, S. D., Mohutsky, M. A., and Taylor, L. S. (2018). Mechanistic Understanding of the Phase Behavior of Supersaturated Solutions of Poorly Water-Soluble Drugs. International Journal of Pharmaceutics. 543 (1-2):29-37.
- 100. Liu, S., Gao, C., Mosquera-Giraldo, L. I., Taylor, L. S., and Edgar, K. J. (2018) Selective Synthesis of Curdlan ω-Carboxyamides by Staudinger Ylide Nucleophilic Ring-opening. Carbohydrate Polymers. 190:222-231.
- 101. Que, C., Gao, Y., Raina, S. A., Zhang, G. Z. Z., and Taylor, L. S. (2018) Paclitaxel Crystal Seeds with Different Intrinsic Properties and Their Impact on Dissolution of Paclitaxel-HPMCAS Amorphous Solid Dispersions. Crystal Growth and Design. 18(3):1548-1559.
- 102. Bhardwaj, V., Trasi, N. S., Zemlyanov, D. Y., and Taylor, L. S. (2018) Surface area normalized dissolution to study differences in itraconazole-copovidone solid dispersions prepared by spray-drying and hot melt extrusion. International Journal of Pharmaceutics. 540(1-2):106-119
- 103. Purohit, H. S., Trasi, N. S., Sun, D. D., Chow, E. C. Y., Wen, H., Zhang, X., Gao, Y., and Taylor, L. S. (2018). Investigating the impact of drug crystallinity in amorphous tacrolimus capsules on pharmacokinetics and bioequivalence using discriminatory in vitro dissolution testing and PBPK modeling and simulation. Journal of Pharmaceutical Sciences.107(5):1330-1341.
- 104. Li, N., and Taylor, L.S. Tailoring supersaturation from amorphous solid dispersions. (2018) Journal of Controlled Release. 279:114-125.
- 105. Alin, J., Setiawan, N., Defrese, M., DiNunzio, J., Lau, H., Lupton, L., Xi, H., Su, Y., Nie, H., Hesse, N., Taylor, L. S., and Marsac, P. J. (2018). A novel approach for measuring room temperature enthalpy of mixing and associated solubility estimation of a drug in a polymer matrix. Polymer. 135(17):50-60.
- 106. Elkhabaz, A., Sarkar, S., Dinh, J. K., Simpson, G. J., and Taylor, L.S. (2018). Variation in the Supersaturation and Phase Behavior of Ezetimibe Amorphous Solid Dispersions Upon Dissolution in Different Biorelevant Media. Molecular Pharmaceutics. 15(1):193-206.
- 107. Tres, F., Hall, S. D., Mohutsky, M. A., and Taylor, L. S. (2018). Monitoring the Phase Behavior of Supersaturated Solutions of Poorly Water-Soluble Drugs Using Fluorescence Techniques. Journal of Pharmaceutical Sciences. 107(1):94-102.
- 108. Kalra, A., Luner, P., Taylor, L. S., Byrn, S. R., and Li, T. (2018). Gaining Thermodynamic Insight from Distinct Glass Formation Kinetics of Structurally Similar Organic Compounds. Journal of Pharmaceutical Sciences. 107(1):192-202.

- 109. Arca, H., C., Mosquera-Giraldo, L. I., Pereira, J. M. Sriranganathan, N., Taylor, L. S., Edgar, K. J. Rifampin Stability and Solution Concentration Enhancement through Amorphous Solid Dispersion in Cellulose ω-Carboxyalkanoate Matrices (2018). Journal of Pharmaceutical Sciences. 107(1):127-138.
- Patel, M. A., Luthra, S., Shamblin, S. L., Arora, K., Krzyzaniak, J. F., and Taylor, L. S. (2018). Impact of solid-state form on the disproportionation of miconazole mesylate. Molecular Pharmaceutics. 15(1):40-52.
- 111. Winslow, C. J., Nichols, B. L. B, Novo, D. C., Mosquera-Giraldo, L. I., Taylor, L. S., Edgar, K. J., and Neilson, A. P. (2018). Cellulose-based amorphous solid dispersions enhance rifapentine delivery characteristics *in vitro*. Carbohydrate Polymers. 182(15):149-158.
- Purohit, H. S., and Taylor, L. S. (2017). Phase Behavior of Ritonavir Amorphous Solid Dispersions During Hydration and Dissolution. Pharmaceutical Research. 34(12):2842-2861.
- 113. Thorat, A. A., Forny, L., Meunier, V., Taylor, L. S., and Mauer, L. J. (2017). Effects of chloride and sulfate salts on the inhibition or promotion of sucrose crystallization in initially amorphous sucrose-salt blends. Journal of Agriculture and Food Chemistry. 65(51):11259-11272.
- 114. Tian, B., Gao, W., Tao, X., Tang, X., and Taylor, L. S. (2017). Impact of Polymers on the Melt Crystal Growth Rate of Indomethacin Polymorphs. Crystal Growth and Design. 17(12):6467-6476.
- 115. Mugheirbi, N. A., Marsac, P. J. and Taylor, L. S. (2017). Insights into Water-Induced Phase Separation in Itraconazole-hydroxypropylmethyl cellulose Spin Coated and Spray Dried Dispersions. Molecular Pharmaceutics. 14(12):4387-4402.
- 116. Mugheirbi, N. A., O'Connel, P., Taylor, L. S., and Tajber, L. (2017) A comparative study on the performance of inert and functionalized spheres coated with solid dispersions made of two structurally related antifungal drugs. Molecular Pharmaceutics. 14(11):3718-3728.
- 117. Hate, S. S., Reutzel-Edens, S. M., and Taylor, L. S. (2017). Absorptive Dissolution Testing of Supersaturating Systems: Impact of Absorptive Sink Conditions on Solution Phase Behavior and Mass Transport. Molecular Pharmaceutics. 14(11):4052-4063.
- 118. Arca, H., C., Mosquera-Giraldo, L. I., Dahal, D., Taylor, L. S., and Edgar, K. J. (2107). Multidrug, Anti-HIV Amorphous Solid Dispersions: Nature and Mechanisms of Impacts of Drugs on Each Other's Solution Concentrations. Molecular Pharmaceutics. 14(11):3617-3627.
- 119. Lu, J., Ormes, J. D., Lowinger, M., Mann, A. K. P., Xu, W., Patel, S., Litster, J. D., and Taylor, L. S. (2017). Compositional Effect of Complex Biorelevant Media on the Crystallization Kinetics of an Active Pharmaceutical Ingredient. CrystEngComm. 19:4797-4806.

- 120. Saboo, S., and Taylor, L. S. (2017). Water-induced Phase Separation of Miconazole-Poly (Vinylpyrrolidone-Co-Vinyl Acetate) Amorphous Solid Dispersions: Insights with Confocal Fluorescence Microscopy. International Journal of Pharmaceutics. 529(1-2):654-666.
- 121. Arioglu-Tuncil, S., Bhardwaj, V., Taylor, L. S. and Mauer, L. J. (2017). The Crystallization Inhibitor Properties of Different Polymers in Thiamine Chloride Hydrochloride Amorphous Solid Dispersions. Food Research International. 99(1):363-374.
- 122. Indulkar, A. S., Waters, A. E., Mo, H., Gao, Y., Raina, S. A., Zhang, G. G. Z., and Taylor, L. S. (2017). Origin of Nanodroplet Formation upon Dissolution of an Amorphous Solid Dispersion: A Mechanistic Isotope Scrambling Study. Journal of Pharmaceutical Sciences. 106(8):1998-2008.
- 123. Xie, T., Gao, W., and Taylor, L. S. (2017). Impact of Eudragit EPO and Hydroxypropyl Methylcellulose on Drug Release Rate, Supersaturation, Precipitation Outcome and Redissolution Rate of Indomethacin Amorphous Solid Dispersions. International Journal of Pharmaceutics. 531(1):313-323.
- 124. Trasi, N. S., Purohit, H., and Taylor, L. S. (2017). Evaluation of the Crystallization Tendency of Commercially Available Amorphous Tacrolimus Formulations Exposed to Different Stress Conditions. Pharmaceutical Research. 34(10):2142-2155.
- 125. Correa-Soto, C., Trasi, N. S., Schmitt, P. D. Su, Y., Liu, Z., Variankaval, N., Marsac, P. J., Simpson, G. J., and Taylor, L. S. (2017). Second Harmonic Generation Microscopy as a Tool for the Early Detection of Crystallization in Spray Dried Dispersions. Journal of Pharmaceutical and Biomedical Analysis. 146:86-95.
- 126. Kalra, A., Tishmack, P., Lubach, J. W., Munson, E., Taylor, L. S., Byrn, S. R., and Li, T. (2017). Impact of Supramolecular Aggregation on the Crystallization Kinetics of Organic Compounds from the Supercooled Liquid State. Molecular Pharmaceutics. 14(6):2126–2137.
- 127. Lu, J., Ormes, J. D., Lowinger, M., Mann, A. K. P., Xu, W., Patel, S., Litster, J. D., and Taylor, L. S. (2017). Impact of Bile Salts on Solution Crystal Growth Rate and Residual Supersaturation of an Active Pharmaceutical Ingredient. Crystal Growth and Design. 17(6): 3528–3537.
- 128. Thorat, A., Marrs, K. N., Ghorab, M. K., Meunier, V., Forny, L., Taylor, L. S, and Mauer, L. J. (2017). Moisture-Mediated Interactions between Amorphous Maltodextrins and Crystalline Fructose. Journal of Food Science. 82(5):1142–1156.
- 129. Li, N., Gilpin, C. J., and Taylor, L. S. (2017) Understanding the impact of water on the miscibility and microstructure of amorphous solid dispersions An AFM/LCR and TEM/EDX study. Molecular Pharmaceutics. 14(5):1691–1705.
- Dong, Y., Mosquera-Giraldo, L.I., Taylor, L.S., and Edgar, K. J. (2017). Tandem Modification of Amphiphilic Cellulose Ethers for Amorphous Solid Dispersion via Olefin Cross-metathesis and Thiol-Michael Addition. Polymer Chemistry. 8:3129-3139.

- 131. Purohit, H. S., Ormes, J. D., Saboo, S., Su, Y., Lamm, M. S., Mann, A. K. P., and Taylor, L. S. (2017). Insights into Nano- and Micron-scale Phase Separation in Amorphous Solid Dispersions using Fluorescence-based Techniques in Combination with Solid State Nuclear Magnetic Resonance Spectroscopy. Pharmaceutical Research. 34(7):1364-1377.
- Indulkar, A. S., Mo, H., Gao, Y., Raina, S. A., Zhang, G. G. Z., and Taylor, L. S. (2017). Impact of micellar surfactant on supersaturation and insight into solubilization mechanisms in supersaturated solutions. Pharmaceutical Research. 34(6):1276-1296.
- 133. Lu, J., Ormes, J. D., Lowinger, M., Mann, A. K. P., Xu, W., Litster, J. D., and Taylor, L. S. (2017). Maintaining Supersaturation of Active Pharmaceutical Ingredient Solutions with Biologically Relevant Bile Salts. Crystal Growth and Design. 17(5):2782–2791.
- 134. Icten, E., Purohit, H. S., Wallace, C., Giridhar, A., Taylor, L. S., Nagy, Z. K., Reklaitis, G. V. (2017). Dropwise Additive Manufacturing of Pharmaceutical Products for Amorphous and Self Emulsifying Drug Delivery Systems. International Journal of Pharmaceutics. 524(1-2):424-432.
- 135. Lu, J., Ormes, J. D., Lowinger, M., Xu, W., Mitra, A., Mann, A. K. P., Litster, J. D., and Taylor, L. S. (2017). Impact of Endogenous Bile Salts on the Thermodynamics of Supersaturated Active Pharmaceutical Ingredient Solutions. Crystal Growth and Design. 17(3):1264-1275.
- Arca, H.C., Mosquera-Giraldo, L.I., Taylor, L.S., and Edgar, K. J. (2017). Synthesis and characterization of alkyl cellulose ω-carboxyesters for amorphous solid dispersion. Cellulose.24:609-625.
- 137. Nie, H., Xu, W., Taylor, L. S., Marsac, P. J., and Byrn, S. R. (2017). Crystalline solid dispersion-a strategy to slowdown salt disproportionation in solid state formulations during storage and wet granulation. International Journal of Pharmaceutics. 517(1-2):203-215.
- 138. Sato, T. and Taylor, L. S. (2017). Acceleration of the crystal growth rate of low molecular weight organic compounds in supercooled liquids in the presence of polyhydroxybutylate. CrystEngComm 19:80-87.
- Xie, T., and Taylor, L. S. (2017). Effect of Temperature and Moisture on the Physical Stability of Binary and Ternary Amorphous Solid Dispersions of Celecoxib. Journal of Pharmaceutical Sciences. 106(1):100-110.
- 140. Gilley, A. D., Arca, H. C., Nichols, B. L. B., Mosquera-Giraldo, L. I., Taylor, L. S., Edgar, K. J., Neilson, A. P. (2107). Novel Cellulose-Based Amorphous Solid Dispersions Enhance Quercetin Solution Concentrations In Vitro. Carbohydrate Polymers. 157:86-93.
- 141. Trasi, N. S., Purohit, H. S., Wen, H., Sun, D. D., and Lynne S. Taylor (2017). Nonsink dissolution behavior and solubility limit of commercial tacrolimus amorphous formulations. Journal of Pharmaceutical Sciences. 106(1):264-272.

- 142. Taylor, L. S., Rantanen, J., Paradkar, A., Kawashima, Y., and Zhang, J. (2017). Professor Peter York- A distinguished career in powders, processing and particle design. Journal of Pharmaceutical Sciences. 106(1):2-4.
- 143. Li, N., Mosquera-Giraldo, L. I., Borca, C. H., Ormes, J. D., Lowinger, M. Higgins, J. D., Slipchenko, L.V, and Taylor, L. S. (2016). A Comparison of the Crystallization Inhibition Properties of Bile Salts. Crystal Growth and Design. 16(12):7286-7300.
- 144. Tian, B., Tang, X., and Taylor, L. S. (2016). Investigating the Correlation between Miscibility and Physical Stability of Amorphous Solid Dispersions Using Fluorescence-based Techniques. Molecular Pharmaceutics. 13(11):3988-4000.
- 145. Mosquera-Giraldo, L. I., Borca, C. H., Meng, X., Edgar, K. J., Slipchenko, L.V, and Taylor, L. S. (2016). Mechanistic Design of Chemically Diverse Polymers with Applications in Oral Drug Delivery. Biomacromolecules. 17(11):3659-3671.
- 146. Nie, H., Su, Y., Zhang, M., Song, Y., Leone, A., Taylor, L.S., Marsac, P. J., Li, T., and Byrn, S. R. (2016). Solid-State Spectroscopic Investigation of Molecular Interactions between Clofazimine and Hypromellose Phthalate in Amorphous Solid Dispersions. Molecular Pharmaceutics. 13(11):3964-3975.
- 147. Nie, H., Xu, W., Ren, J., Taylor, L. S., Marsac, P. J., John, C. T., and Byrn, S. R. (2016) Impact of Metallic Stearates on Disproportionation of Hydrochloride Salts of Weak Bases in Solid-State Formulations. Molecular Pharmaceutics. 13(10):3541-3552.
- 148. Lu, M. and Taylor, L. S. (2016) Vemurafenib: A Tetramorphic System Displaying Concomitant Crystallization from the Supercooled Liquid. Crystal Growth and Design. 16(10):6033-6042.
- 149. Dong, Y., Mosquera-Giraldo, L. I, Troutman, J., Skogstad, B., Taylor, L. S. and Edgar, K. J. (2016). Amphiphilic Hydroxyalkyl Cellulose Derivatives for Amorphous Solid Dispersion Prepared by Olefin Cross-Metathesis. Polymer Chemistry. 7:4953-4963.
- 150. Sun, D. D., Wen, H. and Taylor, L. S. (2016). Non-sink dissolution conditions for predicting product quality and *in vivo* performance of supersaturating drug delivery systems. Journal of Pharmaceutical Sciences.105(9):2477-2488.
- 151. Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G. G. Z., and Taylor, L. S. (2016). Exploiting the phenomenon of liquid-liquid phase separation for enhanced and sustained membrane transport of a poorly water soluble drug. Molecular Pharmaceutics. 13(6):2059-2069.
- 152. Schram, C. J., Smyth, R. J., Taylor, L. S. and Beaudoin, S. P. (2016). Understanding Crystal Growth Kinetics in the Absence and Presence of a Polymer Using a Rotating Disk Apparatus. Crystal Growth and Design. 16(5):2640-2645.
- 153. Li, N., Ormes, J. D. and Taylor, L. S. (2016). Leaching of Lopinavir Amorphous Solid Dispersions in Acidic Media. Pharmaceutical Research. 33(7):1723-1735.

- 154. Alhalaweh, A., Bergström, C. A. S. and Taylor, L. S. (2016). Compromised in vitro dissolution and membrane transport of multidrug amorphous formulations. Journal of Controlled Release. 229:172-182.
- 155. Taylor, L. S. and Zhang, G. G. Z. (2016) Physical Chemistry of Supersaturated Solutions and Implications for Oral Absorption. Advanced Drug Delivery Reviews. 101:122-142.
- 156. Jackson, M. J., Kestur, U. S., Hussain, M. A., and Taylor, L. S. (2016). Characterization of Highly Supersaturated Danazol Solutions – Impact of Polymers on Solution Properties and Phase Transitions. Pharmaceutical Research. 33(5):1276-1288.
- 157. Schram, C. J., Beaudoin, S. P. and Taylor, L. S. (2016). Polymer Inhibition of Crystal Growth by Surface Poisoning. Crystal Growth and Design. 16(4):2094-2103.
- 158. Xie, T., and Taylor, L. S. (2016). Improved Release of Celexocib from High Drug Loading Amorphous Solid Dispersions Formulated with Polyacrylic Acid and Cellulose Derivatives. Molecular Pharmaceutics. 13(3):873-884.
- 159. Li., N. and Taylor, L. S. (2016). Nanoscale Infrared, Thermal, and Mechanical Characterization of Telaprevir-Polymer Miscibility in Amorphous Solid Dispersions Prepared by Solvent Evaporation. Molecular Pharmaceutics. 13(3):1123-1136.
- 160. Xie, T., and Taylor, L. S. (2016). Dissolution Performance of High Drug Loading Celecoxib Amorphous Solid Dispersions Formulated with Polymer Combinations. Pharmaceutical Research. 33(3):739-750.
- Almeida e Sousa, L., Reutzel-Edens, S. M., Stephenson, G. A. and Taylor, L. S. (2016). Supersaturation Potential of Salts, Co-Crystal and Amorphous Forms of a Model Weak Base. Crystal Growth and Design. 16(2):737-748.
- Dong, Y., Mosquera-Giraldo, L. I., Taylor, L. S. and Edgar, K. J. (2016). Design of Functionalized Cellulose Ethers for Amorphous Solid Dispersion via Olefin Cross-Metathesis. Biomacromolecules. 17(2):454-465.
- 163. Jackson, M. J., Kestur, U. S., Hussain, M. A., and Taylor, L. S. (2016). Dissolution of Danazol Amorphous Solid Dispersions: Supersaturation and Phase Behavior as a Function of Drug Loading and Polymer Type. Molecular Pharmaceutics. 13(1):223-231.
- 164. Allan, M., Taylor, L. S. and Mauer, L. J. (2016). Common-Ion Effects on the Deliquescence Lowering of Crystalline Ingredient Blends. Food Chemistry. 195:2-10.
- 165. Nie, H., Liu, Z., Marks, B. C., Taylor, L. S., Byrn, S. R. and Marsac, P. J. (2016) Analytical approaches to investigate salt disproportionation in tablet matrices by Raman spectroscopy and Raman mapping. Journal of Pharmaceutical and Biomedical Analysis. 118:328-337.

- 166. Li, N., Taylor, L. S. and Mauer, L. J. (2016) Heat Transport Model for the Deliquescence Kinetics of Crystalline Ingredients and Mixtures. Journal of Food Engineering. 169:298-308.
- 167. Trasi, N. and Taylor, L. S. (2015) Dissolution Performance of Binary Amorphous Drug Combinations – Impact of a Second Drug on the Maximum Achievable Supersaturation. International Journal of Pharmaceutics. 496(2):282-290.
- 168. Purohit, H. S. and Taylor, L. S. (2015). Miscibility of Itraconazole-Hydroxypropyl Methylcellulose Blends- Insights with High Resolution Analytical Methodologies. Molecular Pharmaceutics. 12(12):4542-4542
- 169. Wegiel, L.A., Mosquera-Giraldo L., Mauer, L.J., Edgar, K.J., and Taylor, L.S. (2015) Phase Behavior of Resveratrol Solid Dispersions Upon Addition to Aqueous Media. Pharmaceutical Research. 2(10):3324-3337.
- 170. Raina, S. A., Alonzo, D. E., Zhang, G. G. Z., Gao, Y. and Taylor, L. S. (2015). Using Environment-Sensitive Fluorescent Probes to Characterize Liquid-Liquid Phase Separation in Supersaturated Solutions of Poorly Water Soluble Compounds. Pharmaceutical Research. 32(11):3660-3673.
- 171. Liu, H., Taylor, L. S. and Edgar, K. E. (2015) The role of polymers in oral bioavailability enhancement; a review. Polymer. 77:399-415.
- 172. Schram, C. J., Taylor, L. S. and Beaudoin, S. P. (2015). Influence of Polymers on the Crystal Growth Rate of Felodipine Correlating Adsorbed Polymer Surface Coverage to Solution Crystal Growth Inhibition. Langmuir. 31(41):11279-11287.
- 173. Raina, S. A., Zhang, G. G. Z., Alonzo, D. E., Wu, J., Zhu, D., Catron, N. D., Gao, Y. and Taylor, L. S. (2015). Impact of Solubilizing Additives on Supersaturation and Membrane Transport of Drugs. Pharmaceutical Research. 32(10):3350-3364.
- 174. Christina, B., Taylor, L. S., and Mauer, L. J. (2015). Physical stability of L-ascorbic acid amorphous solid dispersions in different polymers: a study of polymer crystallization inhibitor properties. Food Research International. 76(3):867-877.
- 175. Hsieh, Y-L., Merritt, J. M.; Yu, W., and Taylor, L. S. Salt Stability The Effect of pHmax on Salt to Free Base Conversion (2015). Pharmaceutical Research. 32(9):3110-3118
- 176. Sato, T. and Taylor, L. S. (2015). Chiral Discrimination by a Cellulose Polymer: Differential Crystallization Inhibition of Enantiomers in Amorphous Dispersions. CrystEngComm. 17:5046-5053.
- 177. Schmitt, P. D., Trasi, N. S., Taylor, L. S. and Simpson, G. S. Finding the Needle in the Haystack – Characterization of Trace Crystallinity in a Commercial Formulation of Paclitaxel Protein-Bound Particles by Raman Spectroscopy Enabled by Second Harmonic Generation Microscopy. (2015) Molecular Pharmaceutics. 12(7):2378-2383.

- Nie, H., Mo, H., Zhang, M., Song, Y., Fang, K., Taylor, L. S. Li, T. and. Byrn, S. R. (2015). Investigating the interaction pattern and structural elements of a drug-polymer complex at the molecular level. Molecular Pharmaceutics. 12(7)2459-2468.
- 179. Trasi, N. S. and Taylor, L. S. (2015). Thermodynamics of Highly Supersaturated Aqueous Solutions of Poorly Water Soluble Drugs – Impact of a Second Drug on the Solution Phase Behavior and Implications for Combination Products. Journal of Pharmaceutical Sciences. 104(8):2583-2593.
- Indulkar, A., Box, K. J., Taylor, R., Ruiz, R., and Taylor, L. S. (2015). pH-Dependent Liquid-Liquid Phase Separation of Highly Supersaturated Solutions of Weakly Basic Drugs. Molecular Pharmaceutics. 12(7):2365-2377.
- Purohit, H. S. and Taylor, L. S. Phase Separation Kinetics in Amorphous Solid Dispersions Upon Exposure to Water. (2015) Molecular Pharmaceutics. 12(5):1623-1635.
- 182. Chen, J., Mosquera-Giraldo L., Ormes, J. D., Higgins, J. D. and Taylor, L. S. (2015). Bile Salts as Crystallization Inhibitors of Supersaturated Solutions of Poorly Water-Soluble Compounds. Crystal Growth and Design. 15(6):2593-2597.
- 183. Raina, S. A., Van Eerdenbrug, B., Alonzo, D. E., Mo, H., Zhang, G. G. Z., Gao, Y. and Taylor, L. S. (2015). Trends in the Precipitation and Crystallization Behavior of Supersaturated Aqueous Solutions of Poorly Water Soluble Drugs Assessed using Synchrotron Radiation. Journal of Pharmaceutical Sciences. 104(6):1981-1992.
- 184. Içten, E., Giridhar, A., Taylor, L. S., Nagy, Z. K., Reklaitis, G. V. (2015). Dropwise Additive Manufacturing of Pharmaceutical Products for Melt-Based Dosage Forms. Journal of Pharmaceutical Sciences. 104(5):1641-1649.
- 185. Toth, S., Schmitt, P. D., Snyder, G. R., Trasi, N. S., George, I. A., Taylor, L. S. and Simpson, G. J. (2015) Ab Initio Prediction of the Diversity of Second Harmonic Generation from Pharmaceutically Relevant Materials. Crystal Growth Design. 15(2):581-586.
- 186. Chen, J., Ormes, J. D., Higgins, J. D. and Taylor, L. S. (2015) Impact of Surfactants on the Crystallization of Aqueous Suspensions of Celecoxib Amorphous Solid Dispersion Spray Dried Particles. Molecular Pharmaceutics. 12(2):533-541.
- 187. Trasi, N. S., Abbou-Oucherif, K., Litster, J. D. and Taylor, L. S. (2015) Evaluating the Influence of Polymers on Nucleation and Growth in Supersaturated Solutions of Acetaminophen. CrystEngComm. 17:1242-1248.
- Mosquera-Giraldo L., and Taylor, L. S. (2015) Glass-Liquid Phase Separation in Highly Supersaturated Aqueous Solutions of Telaprevir. (2015) Molecular Pharmaceutics. 12(2):496-501.
- 189. Almeida e Sousa, L., Reutzel-Edens, S. M., Stephenson, G. A. and Taylor, L. S. (2015). Assessment of the Amorphous "Solubility" of a Group of Diverse Drugs Using New Experimental and Theoretical Approaches. Molecular Pharmaceutics. 12(2):484-495.

- 190. Hsieh, Y-L., and Taylor, L. S. (2015). Salt Stability Effect of Particle Size, Relative Humidity, Temperature and Composition on Salt to Free Base Conversion. Pharmaceutical. Research. 32(2):549-561.
- Hsu, H-Y, Adigun, O. O., Taylor, L. S., Murad, S. and Harris, M. T. (2015). Impact of Surface Chemistry on Crystallization of Acetaminophen. Chemical Engineering Science. 126:1-9.
- 192. Schram, C. J., Beaudoin, S. P. and Taylor, L. S. (2015). Impact of Polymer Conformation on the Crystal Growth Inhibition of a Poorly Water Soluble Drug in Aqueous Solution. Langmuir. 31(1):171-179.
- 193. Lipasek, R.A., Li, N., Taylor, L. S. and Mauer, L. J. (2015) Effect of temperature and initial moisture content on the chemical stability and color change of various forms of vitamin C. International Journal of Food Properties. 18(4):862-879.
- 194. Raina, S. A., Alonzo, D. E., Zhang, G. G. Z., Gao, Y. and Taylor, L. S. (2014). Impact of polymers on the crystallization kinetics of amorphous nifedipine exposed to aqueous media. Molecular Pharmaceutics. 11(10):3565-3576.
- 195. Jackson, M. J., Toth S. J., Kestur, U. S., Huang, J. Qian, F., Hussain, M. A. Simpson, G. J., and Taylor, L. S. (2014). Impact of Polymers on the Precipitation Behavior of Highly Supersaturated Aqueous Danazol Solutions. Molecular Pharmaceutics. 11(9):3027-3038.
- 196. Trasi, N., Baird, J. A. and Kestur, U. S. and Taylor, L. S. (2014). Factors Influencing Crystal Growth Rates from Undercooled Liquids of Pharmaceutical Compounds. J. Phys. Chem. B. 118(33):9974-9982.
- 197. Taylor, L. S. and Hancock, B. C. George Zografi and the Science of Solids and Surfaces. Journal of Pharmaceutical Sciences. 103(9):2592-2594.
- 198. Marks, J., Wegiel, L. A., Taylor, L. S. and Edgar, K. J. (2014). Pairwise Polymer Blends for Oral Drug Delivery. Journal of Pharmaceutical Sciences. 103(9):2871-2883.
- 199. Trasi, N. and Taylor, L. S. (2014). Nucleation and crystal growth of amorphous nilutamide –unusual low temperature behavior. CrystEngComm. 16:7186-7195.
- 200. Li, N., Taylor, L. S. and Mauer, L. J. (2014). The Physical and Chemical Stability of Amorphous (-)-Epi-Gallocatechin Gallate: Effects of Water Vapor Sorption and Storage Temperature. Food Research International. 58:112-123.
- 201. Van Eerdenbrugh, B., Raina, S. A., Hsieh, Y-L., Augustijns, P. and Taylor, L. S. (2014). Classification of the Crystallization Behavior of Amorphous Active Pharmaceutical Ingredients in Aqueous Environments. Pharmaceutical Research. 31(4):969-982.
- 202. Hsieh, Y-L., Box, K. and Taylor, L. S. (2014). Assessing the Impact of Polymers on the pH-Induced Precipitation Behavior of Poorly Water Soluble Compounds using

Synchrotron Wide Angle X-Ray Scattering. Journal of Pharmaceutical Sciences. 103(9):2724-2735.

- 203. Raina, S. A., Zhang, G. G. Z., Alonzo, D. E., Wu, J., Zhu, D., Catron, N. D., Gao, Y. and Taylor, L. S. (2014). Enhancements and Limits in Drug Membrane Transport Using Supersaturated Solutions of Poorly Water Soluble Drugs. Journal of Pharmaceutical Sciences. 103(9):2736-2748..
- Mosquera-Giraldo L., Trasi, N. S., and Taylor, L. S. (2014) Impact of Surfactants on the Crystal Growth of Amorphous Celecoxib. International Journal of Pharmaceutics. 461(1-2):251-257..
- 205. Liu, H., Ilevbare, G. A., Cherniawskia, B. P., Ritchie, E. T., Taylor, L. S. and Edgar, K. J. (2014). Synthesis and Structure-property Evaluation of Cellulose ωcarboxyesters for Amorphous Solid Dispersions. Carbohydrate Polymers. 100:116-125.
- 206. Hsieh, Y-L., Yu, W., Xiang, Y., Pan, W., Waterman, K. C., Shalaev, E. Y., Shamblin, S. L. and Taylor, L. S. (2014). Impact of Sertraline Salt Form on the Oxidative Stability in Powder Blends. International Journal of Pharmaceutics. 461(1-2):322-330.
- 207. Hirshfield, L., Giridhar, A., Taylor, L. S., Harris, M. T., Reklaitis, G. V. (2014). Dropwise Additive Manufacturing of Pharmaceutical Products for Solvent-Based Dosage Forms. Journal of Pharmaceutical Sciences.103(2):496-506.
- 208. Wegiel, L.A., Mauer, L.J., Edgar, K.J., and Taylor, L.S. (2014). Mid-Infrared Spectroscopy as a Polymer Selection Tool for Formulating Amorphous Solid Dispersions. Journal of Pharmacy and Pharmacology. 6(2):244-255.
- 209. Wegiel, L.A., Mauer, L.J., Edgar, K.J., and Taylor, L.S. (2014). Curcumin Amorphous Solid Dispersions: The Influence of Intra and Intermolecular Bonding on Physical Stability. Pharmaceutical Development and Technology. 9(8):976-986.
- Ghorab, M.K, Marrs, K, Taylor, L. S. and Mauer, L. J. (2014) Solid-Water Interactions between Amorphous Maltodextrin and Crystalline Sodium Chloride. Food Chemistry. 144:26-35.
- 211. Ghorab, M.K, Toth, S J., Simpson, G. J., Mauer, L. J. and Taylor, L. S. (2013) Water-Solid Interactions in Amorphous Maltodextrin-Crystalline Sucrose Binary Mixtures. Pharmaceutical Development and Technology. Accepted.
- 212. Pereira, J. M., Mejia-Ariza, R., Ilevbare, G. A. McGettigan, H. E., Sriranganathan, N., Taylor, L. S., Davis, R. M. and Edgar, K. J. (2013) Interplay of Degradation, Dissolution and Stabilization of Clarithromycin and its Amorphous Solid Dispersions. Molecular Pharmaceutics. 10(12):4640-4653.
- Lipasek, R.A., Li, N., Schmidt, S. J. Taylor, L. S. and Mauer, L. J. (2013). Effect of Temperature on the Deliquescence Properties of Food Ingredients and Blends. Journal of Agriculture and Food Chemistry. 61(38):9241-9250.

- 214. Harrison A. J., Bilgili, E. A., Beaudoin, S. P. and Taylor, L. S. (2013) Atomic force microscope infrared spectroscopy of griseofulvin nanocrystals. Analytical Chemistry 85(23):11449-11455.
- 215. Kestur, U. S. and Taylor, L. S. (2013). Evaluation of the Crystal Growth Rate of Felodipine Polymorphs in the Presence and Absence of Additives as a Function of Temperature. Crystal Growth and Design. 13(10):4349-4354.
- 216. Ilevbare, G. A., Liu, H., Pereira, J., Edgar, K. J., Taylor, L.S. (2013). Influence of Additives on the Properties of Nanodroplets Formed in Highly Supersaturated Aqueous Solutions of Ritonavir. Molecular Pharmaceutics. 10, 3392-3403.
- Li, N., Taylor, L. S. Ferruzzi, M. G. and Mauer, L. J. Color and Chemical Stability of Tea Polyphenol (-)-Epigallocatechin-3-gallate in Solution and Solid States. (2013) Food Research International. 53:909-921.
- 218. Li, B., Konecke, S., Wegiel, L.A., Taylor, L.S. and Edgar, K.J. (2013) Both Solubility and Chemical Stability of Curcumin are Enhanced by Solid Dispersion in Cellulose Derivative Matrices. Cellulose. 98: 1108-1116.
- Ilevbare, G. A. Liu, H, Edgar, K. J., Taylor, L.S. (2013). Impact of Polymers on the Crystal Growth Rate of Structurally Diverse Compounds from Aqueous Solution. Molecular Pharmaceutics. 10(6):2381–2393.
- 220. Li, B., Liu, H., Amin, M., Wegiel, L.A., Taylor, L.S. and Edgar, K.J. (2013). Enhancement of Naringenin Solution Concentration by Solid Dispersion in Cellulose Derivative Matrices. Cellulose. 20(4): 2137-2149.
- 221. Li, B., Wegiel, L.A., Taylor, L.S. and Edgar, K.J. (2013). Stability and Solubility Enhancement of Resveratrol in Spray Dried Solid Dispersion with Cellulose Derivative Matrices. Cellulose. 20(3): 1249-1260.
- 222. Ilevbare, G. A. and Taylor, L. S. (2013). Liquid-Liquid Phase Separation in Highly Supersaturated Aqueous Solutions of Poorly-Water Soluble Drugs – Implications for Solubility Enhancing Formulations. Crystal Growth and Design. 13(4):1497-1509.
- 223. Li, B., Konecke, S., Harich, K., Wegiel, L.A., Taylor, L.S. and Edgar, K.J. (2013). Solid Dispersion of Quercetin in Cellulose Derivative or PVP Matrix Influences both Solubility and Stability. Carbohydrate Polymers. 92:2033-2040.
- 224. Maltaş, D. C., Kwok, K., Wang, P., Taylor, L. S. and Ben-Amotz, D. (2013) Rapid Classification of Pharmaceutical Ingredients with Raman Spectroscopy Using Compressive Detection Strategy with PLS-DA Multivariate Filters. Journal of Pharmaceutical and Biomedical Analysis. 80:63-68.
- 225. Abbou-Oucherif, K. Raina, S., Taylor, L. S. and Litster, J. Quantitative Analysis of the Inhibitory Effect of HPMC on Felodipine Crystallization Kinetics Using Population Balance Modeling. (2013) CrystEngComm. 15:2197-2205.
- 226. Christensen, N. P. A., Van Eerdenbrugh, B., Kwok, K., Taylor, L. S., Bond, A. D. Rades, T., Rantanen, J., Cornett, C. Rapid Insight into Heating-induced Phase

Transformations in the Solid-state of the Calcium Salt of Atorvastatin using Multivariate Data Analysis. (2013) Pharmaceutical Research. 30(3):826-835.

- 227. Kestur, U. S., Ivanisevic, I, Alonzo, D. E. and Taylor, L. S. (2013). Influence of Particle Size on the Crystallization Kinetics of Amorphous Felodipine Powders. Powder Technology. 236:197–204.
- Ilevbare, G. A. Liu, H, Edgar, K. J., Taylor, L.S. (2013). Maintaining Supersaturation in Aqueous Drug Solutions - Impact of Different Polymers on Induction Times. Crystal Growth and Design. 13(2):740-751.
- 229. Zhou, Q., Toth, S J., Simpson, G. J., Hsu H-Y., Taylor L. S., Harris, M. T., (2013) Crystallization and Dissolution Behavior of Naproxen/Polyethylene Glycol Solid Dispersions. Journal of Physical Chemistry. 117(5):1494-1500.
- 230. Hsu, H-Y, Toth, S. J., Simpson, G. J., Taylor, L. S., Harris, M. T. (2013) Effect of Substrates on Naproxen/Polyvinylpyrrolidone Solid Dispersions Formed via the Drop Printing Technique. Journal of Pharmaceutical Sciences. 102(2):638-648.
- 231. Wegiel, L.A., Mauer, L.J., Edgar, K.J., and Taylor, L.S. (2013) Crystallization of Amorphous Solid Dispersions of Resveratrol during Preparation and Storage – Impact of Different Polymers. Journal of Pharmaceutical Sciences. 102(1):171-184.
- 232. Baird, J.A., Thomas, L.C., Aubuchon, S.R. and Taylor, L. S. (2013). Evaluating the Non-isothermal Crystallization Behavior of Organic Molecules from the Undercooled Melt State using Rapid Heat/Cool Calorimetry. CrystEngComm. 15(1):111-119.
- 233. Li, B., Harich, K., Wegiel, L.A., Taylor, L.S. and Edgar, K.J. (2013) Stability and Solubility Enhancement of Ellagic Acid in Cellulose Ester Solid Dispersions. Carbohydrate Polymers. 92:1443-1450.
- 234. Back, K. R., Davey, R.J., Grecu, T., Hunter, C. A. and Taylor, L. S. Molecular Conformation and Crystallisation – The Case of Ethenzamide. (2012) Crystal Growth and Design. 12(12):6110-6117.
- 235. Ilevbare, G. A. Liu, H, Edgar, K. J., Taylor, L.S. (2012). The Effect of Binary Additive Combinations on Solution Crystal Growth of the Poorly Water-Soluble Drug, Ritonavir. Crystal Growth and Design. 12(12):6050-6060.
- Li, N., Taylor, L. S. Ferruzzi, M. G. and Mauer, L. J. (2012) Kinetic study of catechin stability: Effects of pH,concentration, and temperature. Journal of Agricultural and Food Chemistry. 60(51):12531-12539.
- 237. Stoklosa, A. M., Lipasek, R. Taylor, L. S. and Mauer, L. J. (2012). Effects of Storage Conditions, Formulation, and Particle Size on Moisture Sorption and Flowability of Powders: a Study of Deliquescent Ingredient Blends. Food Research International. 49: 783-791.
- 238. Christensen, N. P. A., Rantanen, J., Cornett, C., and Taylor, L. S. (2012). Physical Stability of the Calcium Salt of Atorvastatin in the Presence of Acidic Excipients. European Journal of Pharmaceutics and Biopharmaceutics. 82:410-416.

- Ilevbare, G. A. Liu, H, Edgar, K. J., Taylor, L.S. (2012). Inhibition of Solution Crystal Growth of Ritonavir by Cellulose Polymers – Factors Influencing Polymer Effectiveness. CrystEngComm. 14:6503-651.
- Hsieh, Y-L., Ilevbare, G.A., Van Eerdenbrugh, B., Box, K., Sanchez-Felix, M. V. and Taylor, L. S. (2012) pH-Induced Precipitation Behavior of Weakly Basic Compounds – Determination of Extent and Duration of Supersaturation using Potentiometric Titration and Correlation to Solid State Properties. Pharmaceutical Research. 29(10):2738-2753.
- 241. Van Eerdenbrugh, B. and Taylor, L. S. (2012). Molecular Weight Effects on the Miscibility Behavior of Dextran and Maltodextrin with Poly(vinylpyrrolidone). Pharmaceutical Research. 29(10):2754-2765.
- 242. Kestur, U. S., Wanapun, D., Toth, S.J., Wegiel, L. A., Simpson, G. J. and Taylor, L. S. (2012) Nonlinear Optical Imaging for Sensitive Detection of Crystals in Bulk Amorphous Powders. Journal of Pharmaceutical Sciences. 101(11):4201-4213.
- 243. Toth, S.J., Madden, J. T., and Taylor, L. S., Marsac, P.J., and Simpson, G. J. (2012). Selective Imaging of Active Pharmaceutical Ingredients in Powdered Blends with Common Excipients Utilizing Two-Photon Excited Ultraviolet-Fluorescence and Ultraviolet-Second Order Nonlinear Optical Imaging of Chiral Crystals. Analytical Chemistry. 84(14):5869-5875.
- 244. Trasi, N. S., and Taylor, L. S. (2012). Effect of Polymers on Nucleation and Crystal Growth of Amorphous Acetaminophen. CrystEngComm. 14(16):5188-5197.
- 245. Trasi, N. S., and Taylor, L. S. (2012). Effect of Additives on Crystal Growth and Nucleation of Amorphous Flutamide. Crystal Growth and Design. 12(6):3221-3230.
- 246. Ilevbare, G. A., Liu, H., Edgar, K. J., Taylor, L.S. (2012) Understanding Polymer Properties Important for Crystal Growth Inhibition – Impact of Chemically Diverse Polymers on Solution Crystal Growth of Ritonavir. Crystal Growth and Design 12(6):3133-3143.
- 247. Van Eerdenbrugh, B., Lo, M., Kjoller, K., Marcott, C. and Taylor, L.S. (2012) Nanoscale Mid-Infrared Evaluation of the Miscibility Behavior of Blends of Dextran or Maltodextrin with Poly(vinylpyrrolidone). Molecular Pharmaceutics 9(5):1459-1469.
- 248. Kwok, K. and Taylor, L. S. (2012) Analysis of counterfeit Cialis[®] tablets using Raman microscopy and multivariate curve resolution. Journal of Pharmaceutical and Biomedical Anaylsis. 66:126-135.
- 249. Kwok, K. and Taylor, L. S. (2012) Analysis of the Packaging Enclosing a Counterfeit Pharmaceutical Tablet using Raman Microscopy and Two-dimensional Correlation Spectroscopy. Vibrational Spectroscopy. 161:176-182.

- 250. Van Eerdenbrugh, B., Lo, M., Kjoller, K., Marcott, C. and Taylor, L.S. (2012) Nanoscale Mid-Infrared Imaging of Phase Separation in a Drug-Polymer Blend. Journal of Pharmaceutical Sciences. 101(6):2066-2073.
- Zhou, Q. Harris, M. T., and Taylor L. S. (2012) Modification of Crystallization Behavior in Drug/Polyethylene Glycol Solid Dispersions. Molecular Pharmaceutics. 9(3):546-553.
- 252. Alonzo, D.E., Raina, S., Zhou, D.,Gao, Y., Zhang, G.G.Z., and Taylor, L.S. (2012). Characterizing the Impact of Hydroxypropylmethyl Cellulose on the Growth and Nucleation Kinetics of Felodipine from Supersaturated Solutions. Crystal Growth and Design. 12(3):1538-1547.
- 253. Weber, R. J. K., Benmore, C. J., Tumber, S. J., Tailor, A.N., Rey, C.A., Taylor, L. S. and Byrn, S. R. (2012) Acoustic Levitation: Recent Developments and Emerging Opportunities in Biomaterials Research. European Biophysics Journal. 41(4):397-403.
- 254. Baird, J. A. and Taylor, L.S. (2012) Evaluation of Amorphous Solid Dispersion Properties using Thermal Analytical Techniques. Advanced Drug Delivery Reviews. 64(5):396-421.
- 255. Trasi, N. S., Fanwick, P. E. and Taylor, L.S. (2012). Nilutamide. Acta Crystallographica E. 68(3):0591.
- 256. Baird, J. A., Santiago-Quinonez, D., Rinaldi, C. and Taylor, L. S. (2012). Role of Viscosity in Influencing the Glass-forming Ability of Organic Molecules from the Undercooled Melt State. Pharm. Res. 29(1):271-284.
- 257. Lipasek, R. A., Ortiz, J. C., Taylor, L. S. and Mauer, L. J. (2012) Effects of Anticaking Agents and Storage Conditions on the Moisture Sorption, Caking, and Flowability of Deliquescent Ingredients. Food Research International. 45(1):369-380
- 258. Rumondor, A.C.F, Wikström, H., Van Eerdenbrugh, B. and Taylor, L. S. (2011). Understanding the Tendency of Amorphous Solid Dispersions to Undergo Amorphous–Amorphous Phase Separation in the Presence of Absorbed Moisture. AAPS PharmSciTech. 12(4):1209-1219.
- 259. Kestur, U.S., Van Eerdenbrugh, B. and Taylor, L.S. (2011) Influence of polymer chemistry on crystal growth inhibition of two chemically diverse organic molecules. CrystEngComm. 13:6712-6718.
- 260. Van Eerdenbrugh, B., and Taylor L. S. (2011). An *Ab Initio* Polymer Selection Methodology to Prevent Crystallization in Amorphous Solid Dispersions by Application of Crystal Engineering Principles. CrystEngComm. 13:6171-6178.
- 261. Lipasek, R. A., Taylor, L.S., and Mauer, L. J. (2011) Effects of Anticaking Agents and Relative Humidity on the Physical and Chemical Stability of Powdered Vitamin C. Journal of Food Science. 176(7):C1062-C1074.
- 262. Hiatt, A. N., Ferruzzi, M. G., Taylor, L. S. and Mauer, L. J. (2011) Deliquescence behavior and chemical stability of vitamin C forms (ascorbic acid, sodium ascorbate,

and calcium ascorbate) and blends. International Journal of Food Chemistry. 14(6):1330-1348, 2011.

- Van Eerdenbrugh, B., and Taylor L. S. (2011). Application of Mid-IR Spectroscopy for the Characterization of Pharmaceutical Systems. International Journal of Pharmaceutics. 417:3-16.
- Li, N., Taylor, L.S., and Mauer, L.J. (2011) Degradation kinetics of catechins in green tea powder: Effects of temperature and relative humidity. J. Agric. Food Chem. 59(11):6082-6090.
- Zhou, Q. Harris, M. T., and Taylor L. S. (2011) Time-resolved SAXS/WAXS study of the phase behavior and microstructural evolution of drug/PEG solid dispersions. Molecular Pharmaceutics. 8(3):932-939.
- Alonzo, D.E., Gao, Y.,Zhou, D., Mo, H., Zhang, G.G.Z., and Taylor, L.S. (2011) Dissolution and Precipitation Behavior of Amorphous Solid Dispersions. J. Pharm. Sci. 100(8):3316-3331.
- 267. Wanapun, D., Kestur, U. S., Kissick, D. J., Taylor, L. S., and Simpson, G. J. (2011) Single particle nonlinear optical imaging of trace crystallinity in an organic powder. Anal. Chem. 83(12):4745-4751.
- 268. Van Eerdenbrugh, B., Alonzo, D. E. and Taylor L. S. (2011). Influence of particle size on the ultraviolet spectrum of particulate-containing solutions – implications for insitu concentration monitoring using UV/Vis fiber-optic probes. Pharm. Res. 28(7):1643-1652.
- 269. Hiatt, A. N., Taylor, L. S. and Mauer, L. J. (2011). Effects of co-formulation of amorphous maltodextrin and deliquescent sodium ascorbate on moisture sorption and stability. International Journal of Food Properties. 14(4):726-740.
- 270. Sung,P-F., Hsieh Y-L., Angonese, K. Dunn, D., King, K., Machbitz, R., Christianson, A. Taylor, L. S., Harris, M. T., (2011) Complex Dielectric Properties of Microcrystalline Cellulose (MCC), Anhydrous Lactose and α-Lactose Monohydrate Powders Using a Microwave-Based Open Reflection Resonator Sensor. J. Pharm. Sci. 100(7):2920-2934.
- 271. Baird, J. A. and Taylor, L. S. (2011). Evaluation and Modeling of the Eutectic Composition of Various Drug-Polyethylene Glycol Solid Dispersions. Pharmaceutical Development and Technology. 16(3):201-211
- 272. Guerrieri, P., Zemlyanov, D., and Taylor, L.S. (2011) A study of water adsorption on organics crystal surfaces using a modified X-ray photoelectron spectroscopy instrument. Anal. Chem. 83(3):1144-1147.
- 273. Guerrieri, P., Rumondor, A.C.F., Li, T, and Taylor, L.S. (2010). Analysis of relationships between solid-state properties, counterion and developability of pharmaceutical salts. AAPS PharmSciTech. 11(3) 1212-1222.

- 274. Kwok, K., Mauer, L. J. and Taylor, L.S. (2010) Kinetics of moisture-induced hydrolysis in powder blends stored at and below the deliquescence relative humidity: investigation of sucrose-citric acid mixtures. Journal of Agricultural and Food Chemistry. 58(22):11716-11724.
- 275. Mauer L. J. and Taylor, L. S. (2010). Deliquescence of Pharmaceutical Systems. Pharmaceutical Development and Technology. 15(6):582-594.
- Van Eerdenbrugh, B., Fanwick, P. E. and Taylor L. S. (2010).2-Butoxy-N-[2-(diethylamino)ethyl]-quinoline-4-carboxamide (dibucaine). Acta Crystallographica E. E66 o3189.
- Van Eerdenbrugh, B., Fanwick, P. E. and Taylor L. S. (2010). 1-[(Biphenyl-4yl)(phenyl)methyl]-1H-imidazole (bifonazole). Acta Crystallographica Section E. E66 o2649.
- 278. Van Eerdenbrugh, B., Fanwick, P. E. and Taylor L. S. (2010). 2-(Biphenyl-4-yl)acetic acid (felbinac). Acta Crystallographica Section E. E66 o2609.
- Guerrieri, P., Zemlyanov, D., and Taylor, L.S. (2010) Dissociation of Water on the Surface of Organic Salts studied by X-ray Photoelectron Spectroscopy. Langmuir. 26(14): 11998-12002.
- 280. Van Eerdenbrugh, B., and Taylor L. S. (2010). Small Scale Screening to determine the Ability of Different Polymers to Inhibit Drug Crystallization upon Rapid Solvent Evaporation. Molecular Pharmaceutics. 7(4):1328-1337.
- 281. Kestur, U. S., Lee, H., Santiago, D., Rinaldi, C., Won, Y-Y. and Taylor, L. S. (2010) Effects of the Molecular Weight and Concentration of Polymer Additives, and Temperature on the Melt Crystallization Kinetics of a Small Drug Molecule. Crystal Growth and Design. 10(8):3585-3596.
- 282. Zhou, Q., Taylor L. S. and Harris, M. T. (2010) Evaluation of the Microstructure of Semicrystalline Solid Dispersions. Molecular Pharmaceutics. 7(4):1291-1337.
- 283. Rumondor, A.C.F. and Taylor, L.S. (2010) Application of Partial Least Squares (PLS) Modeling in Quantifying Drug Crystallinity in Amorphous Solid Dispersions. International Journal of Pharmaceutics. 398(1-2):155-160.
- 284. Wanapun, D., Kestur, U. S., Kissick, D. J., Simpson, G. J., and Taylor, L. S. Selective Detection and Quantitation of Organic Molecule Crystallization by Second Harmonic Generation Microscopy. Analytical Chemistry 82(13): 5425-5432.
- 285. Baird, J. A., Van Eerdenbrugh, B and Taylor, L. S. (2010). A Classification System to Assess the Crystallization Tendency of Organic Molecules from Undercooled Melts. Journal of Pharmaceutical Sciences. 99(9):3787-3806.
- 286. Van Eerdenbrugh, B., Baird, J. A. and Taylor, L. S. (2010). Crystallization tendency of active pharmaceutical ingredients following rapid solvent evaporation classification and comparison with crystallization tendency from undercooled melts. Journal of Pharmaceutical Sciences. 99(9):3826-3838.

- 287. Kwok, K., Mauer, L. J. and Taylor, L.S. (2010) Phase Behavior and Moisture Sorption Behavior of Deliquescent Powders. Chemical Engineering Science. 65:5639-5650. 10.1016/j.ces.2010.06.012
- 288. Kestur, U.S. and Taylor, L.S. (2010). Role of Polymer Chemistry in Influencing Crystal Growth Rates from Amorphous Felodipine. CrystEngComm. 12:2390-2397.
- 289. Rumondor, A.C.F. and Taylor, L.S. Effect of Polymer Hygroscopicity on the Phase Behavior of Amorphous Solid Dispersions in the Presence of Moisture. (2010) Molecular Pharmaceutics. 7(2):477-490.
- 290. Hiatt, A. N., Taylor, L. S. and Mauer, L. J. (2010) Influence of Simultaneous Variations in Temperature and Relative Humidity on Chemical Degradation of Two Vitamin C forms and Implications for Shelf-life Models. Journal of Agricultural and Food Chemistry. 58(6):3532-3540.
- 291. Alonzo, D.E., Zhang, G.G.Z., Zhou, D., Gao, Y., and Taylor, L.S. (2010). Understanding the Behaviour of Amorphous Pharmaceutical Systems During Dissolution. Pharmaceutical Research. 27(4):608-618. http://dx.doi.org/10.1007/s11095-009-0021-1
- 292. Rumondor, A.C.F., Konno, H., Marsac, P.J., and Taylor, L. S. (2010) Analysis of the Moisture Sorption Behavior of Amorphous Drug-Polymer Blends. Journal of Applied Polymer Science. 117(2):1055-1063. http://dx.doi.org/10.1002/app.31803.
- 293. Rumondor, A.C.F., Jackson, M.J. and Taylor, L.S. (2010) Effects of Moisture on the Growth Rate of Felodipine Crystals in the Presence and Absence of Polymers. Crystal Growth and Design. 10(2):747-753.
- 294. Guerrieri, P., Jarring, K., and Taylor, L.S. (2010) Impact of Counterion on the Chemical Stability of Crystalline Salts of Procaine. J. Pharm. Sci. 99(9):3719-3730.
- 295. Mauer L. J. and Taylor, L. S. (2010). Water-Solids Interactions: Deliquescence. Annual Review of Food Science and Technology. 1:41-63. http://dx.doi.org/10.1146/annurev.food.080708.100915
- 296. Marsac, P.J., Rumondor, A.C.F., Nivens, D. E., Kestur, U. S., Stanciu L. and Taylor, L. S. (2010) Effect of Temperature and Moisture on the Miscibility of Amorphous Dispersions of Felodipine and Poly(vinyl pyrrolidone). Journal of Pharmaceutical Sciences. 99(11):169-185.
- 297. Baird, J. A., Olayo-Valles, R., Rinaldi, C. and Taylor, L. S. (2010) Effect of Molecular Weight, Temperature, and Additives on the Moisture Sorption Properties of Polyethylene Glycol.Journal of Pharmaceutical Sciences. 99(1):154-168.
- 298. Rumondor, A.C.F., Stanford, L. A. and Taylor, L.S. (2009) Effect of Polymer Type and Storage Relative Humidity on the Kinetics of Felodipine Crystallization from Amorphous Solid Dispersions. Pharmaceutical Research 26 (12):2599-2606.

- 299. Gift, A.D., Luner, P.E., Luedeman, L., and Taylor, L.S. (2009). Manipulating hydrate formation during high shear wet granulation using polymeric excipients. Journal of Pharmaceutical Sciences. 98(12):4670-4683.
- 300. Rumondor, A.C.F., Ivanisevic, I., Bates, S., Alonzo, D. E. and Taylor, L. S. (2009). Evaluation of Drug-Polymer Miscibility in Amorphous Solid Dispersion Systems. Pharm. Res. 26 (11):2523-2534.
- 301. Rumondor, A.C.F., Marsac, P.J., Stanford, L. A., and Taylor, L. S. (2009) Phase Behavior of Poly(vinylpyrrolidone) Containing Amorphous Solid Dispersions in the Presence of Moisture. Molecular Pharmaceutics 6 (5):1492-1505.
- 302. Guerrieri, P., and Taylor, L.S. (2009) Role of salt and excipient properties on disproportionation in the solid-state. Pharmaceutical Research 26(8):2015-2026.
- 303. Ortiz, J., Kestur U., Taylor, L.S. and Mauer, L.J. (2009) Interaction of environmental moisture with powdered green tea formulations: Relationship between catechin stability and moisture-induced phase transformations. Journal of Agricultural and Food Chemistry 57:4691-4697.
- 304. Wikström, H., Kakidas, C. and Taylor, L.S. (2009). Determination of hydrate transition temperature using transformation kinetics. Journal of Pharmaceutical and Biomedical Analysis. 49:247-252.
- 305. Marsac, P.J., Li, T., and Taylor, L. S. (2009) Estimation of Drug-Polymer Miscibility and Solubility in Amorphous Solid Dispersions using Experimentally Determined Interaction Parameters. 26 (1): 139-151.
- 306. Konno, H., Handa, T., Alonzo, D. E. and Taylor, L. S. (2008). Effect of Polymer Type on the Dissolution Profile of Amorphous Solid Dispersions Containing Felodipine. European Journal of Pharmaceutics and Biopharmaceutics. 70:493-499.
- 307. Hiatt, A.N. Ferruzzi, M., Taylor, L.S., and Mauer, L. J. (2008) Impact of deliquescence on the chemical stability of vitamins B₁, B₆, and C in powder blends. Journal of Agricultural and Food Chemistry. 56 (15): 6471–6479.
- 308. Towler C. S., Li, T. Wikström, H, Remmick, D., Sanchez-Felix M. V. and Taylor, L. S. (2008) An investigation into the influence of counter-ion on the properties of some amorphous organic salts. Molecular Pharmaceutics. 5 (6): 946-955..
- 309. Wikström, H.; Rantanen, J.; Gift, A. D. and Taylor, L. S. (2008) Towards an understanding of the factors influencing anhydrate-to-hydrate transformation kinetics in aqueous environments. Crystal Growth and Design. 8 (8): 2684–2693.
- Ortiz, J., Ferruzzi, M., Taylor, L.S. and Mauer, L.J. (2008) Interaction of Environmental Moisture with Powdered Green Tea Formulations: Effect on Catechin Chemical Stability. Journal of Agricultural and Food Chemistry 56:4068-4077.
- 311. Gift, A.D., Luner, P.E., Luedeman, L., and Taylor, L.S. (2008) Influence of Polymeric Excipients on Crystal Hydrate Formation Kinetics in Aqueous Slurries. Journal of Pharmaceutical Sciences 97:5198-5211.

- 312. Marsac, P.J., Romary, D.P., Shamblin, S.L., Baird, J.A., and Taylor, L.S. (2008) Spontaneous Crystallinity Loss of Drugs in the Disordered Regions of Poly(ethylene oxide) in the Presence of Water. Journal of Pharmaceutical Sciences. 97: 3182-3194.
- 313. Guerrieri, P., Smith, D.T., and Taylor, L.S. (2008) Phase Behavior of Ranitidine HCl in the Presence of Atmospheric Moisture and Degradants – Influence on Chemical Reactivity. Langmuir 24:3850-3856.
- 314. Wikström, H., Carroll, W.J., and Taylor, L.S. (2008) Manipulating theophylline hydrate formation during high shear wet granulation through improved understanding of the role of pharmaceutical excipients. Pharmaceutical Research.25(4):923-978.
- 315. Konno, H., and Taylor, L.S. (2008) Ability of Different Polymers to Inhibit the Crystallization of Amorphous Felodipine in the Presence of Moisture. Pharmaceutical Research 25(4): 969-978.
- 316. Marsac, P.J., Konno, H., Rumondor, A.C.F., and Taylor, L.S. (2008) Recrystallization of Nifedipine and Felodipine from Amorphous Molecular Level Solid Dispersions Containing Poly(vinylpyrrolidone) and Sorbed Water. Pharmaceutical Research 25 (3):647-656.
- 317. Hu, Y., Wikström, H., Byrn, S.R., and Taylor, L.S. (2007) Estimation of the Transition Temperature for an Enantiotropic Polymorphic System from the Transformation Kinetics Monitored using Raman Spectroscopy. Journal of Pharmaceutical and Biomedical Analysis 45:546–551.
- Romero-Torres, S., Wikström, H., Grant, E.R., and Taylor L.S. (2007) Monitoring of Mannitol Phase Behavior during Freeze-Drying Using Non-Invasive Raman Spectroscopy. PDA Journal of Pharmaceutical Science and Technology 61(2):131-145.
- 319. Towler, C.S., and Taylor, L.S. (2007) Spectroscopic Characterization of Inter-Molecular Interactions in Solution and Their Influence on Crystallization Outcome. Crystal Growth and Design 7(4):633-638.
- 320. Gift, A.D., and Taylor, L.S. (2007) Hyphenation of Raman Spectroscopy with Gravimetric Analysis to Interrogate Water-Solid Interactions in Pharmaceutical Systems. Journal of Pharmaceutical and Biomedical Analysis 43:14-23.
- 321. Guerrieri P., Salameh A.K., and Taylor, L.S. (2007) Effect of Small Levels of Impurities on the Moisture Sorption Behavior of Ranitidine HCl. Pharmaceutical Research 24(1):147-156.
- 322. Salameh, A.K., and Taylor, L.S. (2006) Deliquescence Induced Caking in Binary Powder Blends. Pharmaceutical Development and Technology 11:453-464.
- 323. Konno, H., and Taylor, L.S. (2006) Influence of Different Polymers on the Crystallization Tendency of Molecularly Dispersed Amorphous Felodipine. Journal of Pharmaceutical Sciences 95(12):2692-2705.

- 324. Marsac, P.J., Shamblin, S.L., and Taylor, L.S. (2006) Theoretical and Practical Approaches for Prediction of Drug-Polymer Miscibility and Solubility. Pharmaceutical Research 23(10):2417-2425.
- 325. Marsac, P.J., Konno, H., and Taylor, L.S. (2006) A Comparison of the Physical Stability of Amorphous Felodipine and Nifedipine Systems. Pharmaceutical Research 23(10):2306-2316.
- 326. Hu, Y., Wikström, H., Byrn S.R., and Taylor, L.S. (2006) Analysis of the Effect of Particle Size on Polymorphic Quantitation by Raman Spectroscopy. Applied Spectroscopy 60(9):977-984.
- 327. Wikström, H., Romero-Torres, S., Wongweragiat, S., Stuart Williams, J.A., Grant, E.R., and Taylor, L.S. (2006) On-Line Content Uniformity Determination of Tablets Using Low-Resolution Raman Spectroscopy. Applied Spectroscopy 60(6):672-681.
- 328. Salameh, A.K., and Taylor, L.S. (2006) The Role of Deliquescence Lowering in Enhancing Chemical Reactivity in Physical Mixtures. Journal of Physical Chemistry B 110(20):10190-10196.
- 329. Salameh, A.K., Mauer L.J., and Taylor, L.S. (2006) Deliquescence Lowering in Food Ingredient Mixtures. Journal of Food Science 71(1):E10-E16.
- 330. Salameh, A.K., and Taylor, L.S. (2006) Physical Stability of Crystal Hydrates and Their Anhydrates in the Presence of Excipients. Journal of Pharmaceutical Sciences 95(2):446-461.
- 331. Rantanen, J., Wikström, H., Rhea, F.E., and Taylor, L.S. (2005) Improved Understanding of Factors Contributing to Quantification of Anhydrate/Hydrate Powder Mixtures. Applied Spectroscopy 59(7):942-951.
- 332. Wikström, H., Lewis, I.R., and Taylor, L.S. (2005) Comparison of Sampling Techniques for In-Line Monitoring Using Raman Spectroscopy. Applied Spectroscopy 59(7):934-941.
- 333. Salameh, A.K., and Taylor, L.S. (2005) Deliquescence in Binary Mixtures. Pharmaceutical Research 22(2):318-324.
- 334. Rantanen, J., Wikström, H., Turner, R., and Taylor, L.S. (2005) Use of In-Line Near-Infrared Spectroscopy in Combination with Chemometrics for Improved Understanding of Pharmaceutical Processes. Analytical Chemistry 77(2):556-563.
- 335. Hu, Y., Liang, J., Myerson, A., and Taylor, L.S. (2005) Crystallization Monitoring by Raman Spectroscopy: Simultaneous Measurement of Desupersaturation Profile and Polymorphic Form in Flufenamic Acid Systems. Industrial and Engineering Chemistry Research 44(5):1233-1240.
- 336. Wikström, H., Marsac, P.J., and Taylor, L.S. (2005) In-Line Monitoring of Hydrate Formation During Wet Granulation Using Raman Spectroscopy. Journal of Pharmaceutical Sciences 94(1):209-219.

- 337. Ringqvist, A., Taylor, L.S., Ekelund, K., Ragnarsson, G., Engströme, S., and Axelsson, A. (2003) Atomic Force Microscopy Analysis and Confocal Raman Microimaging of Coated Pellets. International Journal of Pharmaceutics 267(1-2):35-47.
- 338. Santesson, S., Johansson, J., Taylor, L.S., Levander, I., Fox, S., Sepaniak, M., and Nilsson, S. (2003) Airborne Chemistry Coupled with Raman Spectroscopy. Analytical Chemistry 75(9):2177-2180.
- 339. Johansson, J., Pettersson, S. and Taylor, L.S. (2002) Infrared Imaging of Laser-Induced Heating During Raman Spectroscopy of Pharmaceuticals. Journal of Pharmaceutical and Biomedical Analysis 30:1223-1231.
- 340. Ahlqvist, M.U.A., and Taylor, L.S. (2002) Water Dynamics in Channel Hydrates Investigated Using H/D Exchange. International Journal of Pharmaceutics 241(2):253-261.
- 341. Tong, P., Taylor, L.S., and Zografi, G. (2002) Influence of Alkali Metal Counterions on the Glass Transition Temperature of Amorphous Indomethacin Salts. Pharmaceutical Research 19(5):649-654.
- 342. Tang, X.C., Pikal, M.J., and Taylor, L.S. (2002) The Effect of Temperature on Hydrogen Bonding in Crystalline and Amorphous Phases in Dihydropyridine Calcium Channel Blockers. Pharmaceutical Research 19(4):484-490.
- 343. Tang, X.C., Pikal, M.J., and Taylor, L.S. (2002) A Spectroscopic Investigation of Hydrogen Bond Patterns in Crystalline and Amorphous Phases in Dihydropyridine Calcium Channel Blockers. Pharmaceutical Research 19(4):477-483.
- 344. Ahlqvist, M.U.A., and Taylor, L.S. (2002) Water Diffusion in Hydrated Crystalline and Amorphous Sugars Monitored Using H/D Exchange. Journal of Pharmaceutical Sciences 9(3):690-698.
- 345. Broman, E.; Khoo, C., and Taylor, L.S. (2001) A Comparison of Alternative Polymer Excipients and Processing Methods For Making Solid Dispersions of a Poorly Water Soluble Drug. International Journal of Pharmaceutics 222(1):139-151.
- 346. Taylor, L.S., and Langkilde F.W., and Zografi, G. (2001) Fourier Transform Raman Spectroscopic Study of the Interaction of Water Vapor with Amorphous Polymers. Journal of Pharmaceutical Sciences 90(7):888-901.
- 347. Taylor, L.S., and Langkilde F.W. (2000) Evaluation of Solid State Forms Present in Tablets by Raman Spectroscopy. Journal of Pharmaceutical Sciences 89(10):1342-1353.
- Taylor, L.S., and Zografi, G. (1998) Sugar-Polymer Hydrogen Bond Interactions in Lyophilised Amorphous Mixtures. Journal of Pharmaceutical Sciences 87(12):1615-1621.
- 349. Taylor, L.S.; Shamblin, S.L., and Zografi, G., and (1998) Mixing Behavior of Colyophilized Binary Systems. Journal of Pharmaceutical Sciences 87(6):694-701.

- 350. Taylor, L.S., and Zografi, G. (1998) The Quantitative Analysis of Crystallinity Using FT-Raman Spectroscopy. Pharmaceutical Research 15(5):755-761.
- 351. Taylor, L.S., and York, P. (1998) Effect of Particle Size and Temperature on the Dehydration Kinetics of Trehalose Dihydrate. International Journal of Pharmaceutics 167(1-2):215-221.
- 352. Taylor, L.S.; Williams, A.C.; and York, P. (1998) Particle Size Dependent Molecular Rearrangements During the Dehydration of Trehalose Dihydrate-*In Situ* FT-Raman Spectroscopy. Pharmaceutical Research 15(8):1207-1214.
- 353. Taylor, L.S., and York, P. (1998) Characterization of the Phase Transitions of Trehalose Dihydrate on Heating and Subsequent Dehydration. Journal of Pharmaceutical Sciences 87(3):347-355.
- 354. Taylor, L.S., and Zografi, G. (1997) Spectroscopic Characterization of Interactions between PVP and Indomethacin in Amorphous Molecular Dispersions. Pharmaceutical Research 14(12):1691-1698.
- 355. Taylor, L.S.; Williams, A.C.; and Mehta, V., and York, P. (1997) Characterization of Frozen Glucose Solutions. Pharmaceutical Development and Technology 2(4):395-402
- 356. Taylor, L.S.; Williams, A.C.; Edwards, H.G.M.; Mehta, V.; Jackson, G.S.; Badcoe, I.G.; and Clarke, A., and York, P. (1995) Sucrose Reduces the Efficiency of Protein Denaturation by a Chaotropic Agent. Biochimica et Biophysica Acta 1253(1):39-46.

Editorials

- 1. Taylor, L.S., (2022). The Myth of Meritocracy in the Pharmaceutical Sciences. *Molecular Pharmaceutics*, 19(3): 729-730.
- 2. Taylor, L.S., (2022). Review of the Picture a Scientist Documentary. *Molecular Pharmaceutics*, 19(2):359-360.
- 3. Taylor, L. S. (2021). Introducing "Voices in Molecular Pharmaceutics" Series. *Molecular Pharmaceutics*. 18(12): 4233-4233.
- 4. Taylor, L. S. (2021). Work–Life Balance in the Pharmaceutical Sciences: More Essential Than Ever Today *Molecular Pharmaceutics* 18(10):3649-3651.
- Taylor, L.S., Bergström, C.A.S., Lavasanifar, A., Qian, F., Suryanarayanan, R., Thurecht, K. J. (2021) Celebrating Women in the Pharmaceutical Sciences. *Molecular Pharmaceutics* 18(4):1487-1490.
- 6. Taylor, L. S., Braun, D. E., Steed, J. W. (2021). Crystals and Crystallization in Drug Delivery Design. *Crystal Growth & Design* 21(3):1375-1377.
- 7. Burrows, C.J., et al. (2020). Editorial confronting racism in chemistry journals. *ACS Materials Letters*, 2(7):829-831.
- 8. Burrows, C.J., et al. (2020). Update to Our Reader, Reviewer, and Author Communities—April 2020. *Langmuir*, 36(17):4565-4566.

Patents and Disclosures

Novel thiamine-organic acid salt LS Taylor, LJ Mauer, V Bhardwaj US Patent App. 16/423,321

Inhibition of Sucrose Crystallization Using Glycosides LS Taylor, LJ Mauer, A Thorat US Patent App. 16/165,415

Cellulose derivatives for inhibiting crystallization of poorly water-soluble drugs KJ Edgar, B Li, L Taylor, G Ilevbare, SM Williams, H Liu US Patent App. 14/368,911

Imaging crystalline domains of small molecules GJ Simpson, D Wanapun, LS Taylor, US Kestur, SJ Toth US Patent 8,836,925

Cellulose derivatives for enhancing bioavailability of flavonoids KJ Edgar, B Li, L Taylor, G Ilevbare, SM Williams US Patent App. 13/880,521

Methods and systems for depositing active ingredients on substrates AV Giridhar, M Harris, GV Raklaitis, LS Taylor, ZK Nagy, E Icten, F Fiesser US Patent App. 15/751,771

Book Chapters

Taylor, L. S. and Shamblin, S. L. Amorphous Solids. In *Polymorphism*, 2nd Ed. Editor H. Brittain. Informa Healthcare, USA 2009.

Kwok, K. and Taylor, L.S. Raman Spectroscopy for the Analysis of Counterfeit Tablets. In *Infrared & Raman Spectroscopy in Forensic Science*. Editors: J. Chalmers, H.G.M. Edwards and M. Hargreaves. Wiley. 2012.

Taylor, L. S. Physical Stability and Crystallization Inhibition. In *Pharmaceutical Amorphous Solid Dispersions*. Editor A. Newman. Wiley 2015.

INVITED TALKS/SHORT COURSES

- 1. Impact of Phase Separation on Amorphous Solid Dispersion Performance. American Association of Pharmaceutical Scientists Annual Meeting, Boston, MA, October 2022.
- 2. Supersaturation Profiles of Enabling Formulations Containing Weakly Basic Drugs. American Chemical Society Annual Meeting, Chicago, IL, August 2022.
- 3. How Far Can We Push the Drug Loading in ASD Formulations? NIPER, Mohali. August 2022. Virtual.
- 4. Guts and Gall: Factors Impacting Crystallization from Supersaturating Dosage Forms Following Oral Ingestion. Gordon Research Conference, Sunday River, ME. June 2022.
- 5. Amorphous Solid Dispersions of Weakly Basic Drugs. Pfizer, April 2022. Virtual.

- 6. How Far Can We Push the Drug Loading in ASD Formulations? AbbVie, Waukegan, March 2022.
- 7. Heat-Induced Phase Transformations Relevance to 3DP. Aprecia-Purdue-USP seminar series. February 2022. Virtual.
- 8. Solubility Enhancing Technologies. Colorcon. January 2022. Virtual.
- 9. Solid Dispersions and Crystallinity. American Association of Pharmaceutical Scientists Annual Meeting. October 2021. Virtual.
- 10. Enabling Solid-state Biological Products Through the Development of Approaches to Better Understand Protein-Excipient Miscibility and Spatial Homogeneity. American Association of Pharmaceutical Scientists Annual Meeting. October 2021. Virtual.
- Dissolution, Supersaturation, and Crystallization in Environments Mimicking the Gut. University of Texas, Austin, Pharmaceutical Sciences Seminar Series, September 2021, Virtual.
- 12. Strategies to improve the robustness of delamanid amorphous solid dispersion formulations. David Grant Symposium. June 2021, University of Minnesota. Virtual.
- 13. Developing a gut-feeling for dissolution, supersaturation, and crystallization of orally delivered enabling formulations. St. John's University, June 2021, Virtual
- 14. Characterization of Solid-State Forms UsingThermal and Microscopy Methods. Amorphous Materials, Erice 2021, Molecular Crystal Engineering. June 2021, Virtual
- 15. Amorphous Materials, Erice 2021, Molecular Crystal Engineering. June 2021, Virtual
- 16. Excipients for Solubility-Enabling Formulations. IPEC Foundation Webinar. May 2021, Virtual.
- 17. Dissolution, Supersaturation, and Crystallization in Environments Mimicking the Gut. Crystal Growth and Design Seminar Series, April 2021, Virtual
- 18. Delivering the Insoluble: Amorphous Solid Dispersions. ACS Spring Meeting, March 2021, Virtual
- 19. Understanding the solubility and release rate of amorphous dispersions, The Society For Pharmaceutical Dissolution Science, September 2020, Virtual.
- 20.
- 21. Characterizing the Phase Behavior of Solubility Enhancing Formulations using Orthogonal Analytical Approaches. AAPS Annual meeting, San Antonio, TX, November, 2019.
- 22. Approaches to measure equilibrium (intrinsic) and "transient" solubility, and the impact on dissolution and membrane transport kinetics. University of Maryland, Balimore, MD. September 2019 at the "Current State and Future Expectations of

Translational Modeling Strategies to Support Drug Product Development, Manufacturing Changes and Controls" FDA Workshop.

- 23. Phase Behavior of Amorphous Solid Dispersions Role of Molecular Interactions. Keynote Talk, Gordon Research Conference, Waterville Valley, NH. June 2019.
- 24. Supersaturation and phase behavior of weakly basic drugs as a function of pH. Systems-based Pharmaceutics Consortium. Eli Lilly, Indianaplis, IN. May 2019.
- 25. Amorphous Formulations for Solubility and Bioavailability Enhancement. Institute of Drug Discovery. Purdue University. May 2019.
- 26. Knowns and Unknowns about How Amorphous Solid Dispersions Improve Oral Absorption. Celegene. Summit, NJ. December 2018.
- 27. Impact of Amorphous Solid Dispersion Physicochemical Properties on Absorption Profiles. Bioequivalence Bioavailability Conference. Lisbon, Portugal. October 2018.
- 28. Dissolution of Amorphous Solid Dispersions- Mechanisms and Speciation. Hovione, Lisbon, Portugal. October 2018.
- 29. Spray drying of poorly water soluble drugs Impact of solvent and processing conditions on phase behavior and compositional heterogeneities. Food and Drug Administration, Silver Springs, MD. September 2018
- Serendipity and Solid Dispersions. Postgraduate Student Research Meeting. Minnesota, MN. June 2018.
- 31. Probing Crystallization of Drugs Using Synchrotron Radiation. Spring Pharmaceutical Synchrotron X-Ray Powder Diffraction Workshop. Purdue University, IN. May 2018.
- 32. Mechanisms of Drug Release From Amorphous Solid Dispersions Lessons Learned and Future Directions. AbbVie. North Chicago, IL. May 2018.
- Impact of crystals on the *in vitro* & *in vivo* performance of supersaturating formulations. American Association of Pharmaceutical Scientists Annual Meeting. San Diego, CA. November 2017.
- Probing the Precipitation Behavior of Poorly Water Soluble Compounds. American Association of Pharmaceutical Scientists Annual Meeting. San Diego, CA. November 2017.
- 35. Biorelevant Phase Transformations in Supersaturated Solutions of Poorly Water Soluble Drugs. AICHE Annual Meeting. Minneapolis, MN. October 2017.
- 36. Dissolution of Amorphous Solid Dispersions- Mechanisms and Speciation. AAPS ChicagoLand Discussion Group. Chicago, IL, September 2017.

- 37. Impact of Additives on the Crystallization of Pharmaceutical Substances. 21st American Conference on Crystal Growth and Epitaxy, Sante Fe, NM, July 2017.
- 38. Phase transformations in supersaturated solutions implications for formulation and bioavailability. Abbvie. North Chicago, Illinois. November 2016.
- Impact of Water on the Phase Behavior of Poorly Water-Soluble Amorphous Drug Formulations. Plenary Lecture. International Symposium on the Properties of Water. Lausanne, Switzerland. June 2016.
- 40. Solubility Enhancement Using Amorphous Formulations. Land of Lakes Symposium. Madison, Wisconsin. June 2016.
- 41. Liquid-Liquid Phase Separation in Supersaturated Solutions of Poorly Water Soluble Compounds—Implications for Bioavailability. Arden House Conference. Baltimore, Maryland. April 2016.
- 42. Factors impacting the performance of amorphous solubility enhancing formulations. Food and Drug Adminstration. Silver Springs, Maryland. April 2016.
- 43. Modification of Crystallization Kinetics with Additives. Peck Symposium. West Lafayette, Indiana. March 2016.
- 44. Disproportionation of Salts. Pfizer. Groton, Connecticut. November 2015.
- 45. Phase Behavior of Amorphous Solid Dispersions, Bend Research Institute, Bend, Oregon. October 2015.
- Liquid Liquid Phase Separation in Dilute but Highly Supersaturated Aqueous Solutions of Lipophilic Drugs. American Chemical Society Meeting, Boston, August 2015.
- 47. How High Can You Go? Factors Impacting the Maximum Achievable Supersaturation. Eli Lilly and Company, Indianapolis, August 2015.
- 48. Impact of Surfactants and Polymers on Supersaturated Solutions of Poorly Water Soluble Drugs. Trinity College Dublin, Ireland, June 2015.
- 49. An Overview of Amorphous Solid Dispersions Performance Requirements? Trinity College Dublin, Ireland, June 2015.
- 50. An Overview of Amorphous Solid Dispersions. Materials and Surface Science Institue Symposium, Plenary Talk. University of Limerick, Ireland, June 2015.
- 51. Amorphous Solid Dispersions –Emerging Research Areas and Lessons Learned. Abbvie, North Chicago. April 2015.
- 52. Impact of Surfactants and Polymers on Supersaturated Solutions of Poorly Water Soluble Drugs. Plenary Talk. European Drug Absorption Network Annual Meeting, Leuven, Belgium, March 2015.

- 53. 50 Years of Amorphous Solid Dispersion Research What's Next? Chaney Faculty Scholar Award Lecture, Purdue University, November 2014.
- 54. Evaluation of Crystallization and Precipitation in Highly Supersaturated Aqueous Solutions. American Association of Pharmaceutical Scientists Annual Meeting. San Diego, November 2014.
- 55. Enabling Drug Delivery Technology Which One and Why? American Association of Pharmaceutical Scientists Annual Meeting. San Diego, November 2014.
- 56. Improving Drug Delivery with Vibrational Spectroscopy. Coblentz Society Craver Award Presentation. SCIX 2014, Reno, September 2014.
- 57. Dissolution Behavior of Amorphous Solid Dispersions. David Grant Symposium, Minneapolis, May 2014.
- 58. Towards Understanding the Complex Phase Behavior of Supersaturated Aqueous Solutions. Amgen, Cambridge, MA, April 2014.
- 59. Factors Impacting the Crystallization Kinetics of Amorphous Pharmaceuticals. Pfizer, Groton, CT, April 2014.
- 60. Phase transitions in supersaturated solutions relevance to enhancing the delivery of poorly water soluble compounds. American Association of Pharmaceutical Scientists North East Regional Discussion Group Plenary Lecture. Farmington CT. April 2014.
- 61. Towards Understanding the Complex Phase Behavior of Supersaturated Aqueous Solutions. Novartis, Cambridge, MA, April 2014.
- 62. Towards understanding the supersaturation potential of high energy formulations. Eli Lilly and Company, Indianapolis, October 2013.
- 63. Phase Behavior of Amorphous Solid Dispersions. Association for Crystallization Technology, 19th Annual Larson Workshop, Indianapolis, September 2013.
- 64. Imaging of Pharmaceutical Systems using Nanoscale Infrared Spectroscopy. SCIX 2014, Milwaukee, September 2013.
- 65. Crystallization of Organic Compounds and Modification of Crystallization Kinetics by Polymeric Additives. Ashland Specialty Ingredients, Delaware, August 2013
- 66. Characterizing Crystallization in Amorphous Systems. Gilead, Foster City, California July 2013.
- 67. Formation of colloidal species in supersaturated solutions implications for solid dispersion delivery strategies. Bristol Myers Squibb. Moreton, UK, June 2013.

- 68. The Complications of Crystallization in Supersaturated Solutions of Poorly Water Soluble Drugs British Association for Crystal Growth, Manchester, UK, June 2013.
- 69. Phase Behavior of Amorphous Solid Dispersions During Dissolution. Gordon Research Conference on Preclinical Form & Formulation for Drug Discovery. Waterville, NH, June 2013.
- 70. Amorphous Formulations- Advantages and Pitfalls.6th International Symposium on Oral Solid Dosage Forms. Malmo, Sweden. April 2013.
- 71. Colloid formation in supersaturated solutions observations and (potential) explanations. Merck, Summit, New Jersey. March 2013.
- 72. Plenary Lecture Impact of Additives on the Crystallization of Amorphous Systems. Crystal Growth of Organic Molecules, Limerick, Ireland, June 2012.
- 73. Crystallization of Amorphous Systems and Impact of Additives. M3 meeting, Banff, Canada, May 2012.
- 74. Characterizing Crystalline and Amorphous Forms of APIs. Joint Federation of Analytical and Spectroscopies, Royal Society of Chemistry, Royal Pharmaceutical Society of Great Britain and Infrared and Raman Discussion Group Symposium on Advances in Raman Spectroscopy in Pharmaceutical Analysis, Royal Society of Chemistry, London, UK, May 2012.
- 75. Stabilization of Supersaturated Drug Solutions by Polymeric Additives. IPrime workshop: Cellulosic Materials: Synthesis Properties, and Applications Workshop, University of Minnesota, Minneapolis, January 2012.
- 76. Factors Affecting Crystallization from Amorphous Systems. Ninth Annual Garnet E. Peck Symposium. Purdue University, West Lafayette, IN. October 2011.
- 77. Monitoring Crystallization Kinetics from Organic Amorphous Systems using Raman Spectroscopy. Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Annual Meeting. Reno, NV. October 2011.
- Quality by Design Approaches for Amorphous Solid Dispersions. Thirteenth International Workshop on Physical Characterization of Pharmaceutical Solids.Indianapolis, IN. June 2011
- 79. Supersaturation interplay between solid-state properties, solution concentration and polymeric additives . Lecture at the 43rd Journees Galeniques Meeting on Supersaturation, St. Rémy, France, an exclusive scientific meeting of of the Académie des Alpilles, all participants attend by invitation only.
- 80. Influence of Polymers on the Crystallization Behavior of Amorphous Systems. Boehringer Ingelheim, Connecticut, April 2011.
- 81. Influence of Polymers on the Crystallization of Supercooled Liquids and Glasses. Department of Chemical Engineering, University of Manchester, UK, April 2011

- 82. Crystallization Behavior of Amorphous Formulations. AstraZeneca, UK, April 2011
- 83. Introduction to Amorphous Systems. AstraZeneca, UK, April 2011
- 84. Important Considerations in the Formulation of Amorphous Solid Dispersions. Allergan, California, March 2011.
- 85. Intermolecular Interactions in Amorphous Systems. Allergan, California, March 2011.
- 86. Non linear optical imaging for highly sensitive detection of crystals in amorphous films and bulk amorphous powders. Merck, Pennsylvania, March 2011
- 87. Formulation considerations for amorphous solid dispersions. Minisymposium: Future formulation strategies. The Faculty of Pharmaceutical Sciences, University of Copenhagen, Denmark. January 2011.
- Quantitative Analysis of API Crystals by Nonlinear Optical Imaging. Abbott Laboratories, Illinois, December 2010
- 89. Polymer Choice for Solid Dispersions Blind Date or Chemistry. Abbott Laboratories, Illinois, December 2010
- 90. Crystallization behavior of amorphous solids in the presence and absence of polymers. Bristol Myers Squibb, New Jersey, September 2009
- 91. Crystallization from Amorphous Systems. University of Kentucky, March 2009
- 92. Crystallization from Amorphous Systems. University of Minnesota, February 2009.
- 93. Influence of Moisture and Temperature on the Phase Behavior of Amorphous Solid Dispersions. Kansas University Faculty Retreat, Kansas, October 2008.
- 94. Understanding hydrate formation during aqueous wet granulation, Amgen, California, August 2008.
- 95. Influence of temperature and moisture on the phase behaviour of amorphous solid dispersions. SSCI, West Lafayette, July 2008.
- 96. Inline monitoring of crystallization processes, Peck Symposium, Lafayette, IN, October 2007.
- 97. PTI Training Program on Formulation & Process Development for Oral Dosage Forms (short course), Princeton, New Jersey. Role of water in solid state stability. May 2008.
- 98. Short Course, University of Wisconsin-Madison, Madison, Wisconsin. Water Interactions with Pharmaceutical Solids. May 2008.
- 99. Understanding hydrate formation during aqueous wet granulation, Abbott Labs, Abbott Park, Illinois, June 2007.

- 100. Factors influencing the physical stability of amorphous solid dispersions, 3M, St. Paul, Minnesota, May 2007.
- 101. Factors influencing the physical stability of amorphous solid dispersions, AstraZeneca, Wilmington Delaware, May 2007.
- 102. Role of water in solid state stability, PTI Training Program on Formulation & Process Development for Oral Dosage Forms (short course), Princeton, New Jersey, April 2007.
- 103. Water Interactions with Pharmaceutical Solids, Short Course, University of Wisconsin-Madison, Madison, Wisconsin, April 2007
- 104. Factors influencing the physical stability of amorphous solid dispersions, Merck, West Point, New Jersey, April 2007.
- 105. Crystallization from amorphous molecular level solid dispersions influence of polymer type and absorbed water, Novartis, Sussex, UK, March 2007.
- 106. Crystallization from amorphous molecular level solid dispersions influence of polymer type and absorbed water, GlaxoSmithKline, Hertfordshire, UK., March 2007.
- 107. Influence of polymer type on the crystallization tendency of a model amorphous drug, 233rd American Chemical Society National Meeting, Chicago, Illinois, March 2007.
- Crystallization from amorphous molecular level solid dispersions, American Chemical Society ProSpectives 2007 Meeting on Crystallization Process Development, Cambridge, Massachusetts, February 2007.
- 109. Crystallization from amorphous molecular level solid dispersions. Association for Crystallization Technology, 14th Annual Larson Workshop, Princeton, New Jersey, September 2006.
- 110. June 2006. Recent Advances of Physical Chemical Phenomena of Pharmaceutical Interest, University of Wisconsin-Madison. Research symposium in honor of Professor George Zografi. Invited speaker. Crystallization from amorphous molecular level solid dispersions.
- 111. June 2006. Land of the Lakes 48th Annual international industrial pharmaceutical research conference on "Design & Characterization of Pharmaceutical Solids for Quality Product Development" Invited Lecture: Analytical methods to probe the solid state form of the drug during formulation processes.
- 112. June 2006 Helsinki Drug Research Conference, Helsinki, Finland. Invited speaker Monitoring and manipulating hydrate formation kinetics during wet granulation.
- 113. May 2006, AstraZeneca, Sweden. Crystallization from amorphous systems.
- 114. April 2006 PTI Training Program on Formulation & Process Development for Oral Dosage Forms, Princeton, New Jersey. Invited lecturer for short course. Role of water in solid state stability.

- 115. November 2005. Eastern Analytical Symposium (EAS), Somerset NJ, Invited speaker. Monitoring hydrate formation kinetics during wet granulation using in-line Raman spectroscopy
- 116. November 2005. Bristal Myers Sqibb. Invisted speaker and consultant. Stabilization of amorphous solid dispersions through rational polymer selection.
- 117. October 2005. Water Interactions with Pharmaceutical Solids, Short Course, University of Wisconsin-Madison, Malvern, Pennsylvania.
- 118. November 2004 AAPS Annual Meeting, Baltimore. Invited speaker. Recent advances in the characterization of solid dispersions.
- 119. October 2004 Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Annual Meeting, Portland, Oregan. Invited speaker Monitoring the kinetics of solvent mediated phase transformations.
- 120. September 2004. 9th International Symposium on the Properties of Water (ISOPOW), Argentina. Invited speaker. Probing water-solid interactions in crystalline and amorphous systems using vibrational spectroscopy.
- 121. September 2004 University of Wisconsin-Madison. Invited Lecture. Intermolecular Interactions in Amorphous Systems.
- 122. June 2004 Kaiser Optical Systems Inc. Invited Lecture: Crystallization monitoring by Raman spectroscopy.
- 123. June 2004 American Chemical Society 36th Central Regional Meeting in Indianapolis. Invited Podium Presentation: Monitoring the Kinetics of Solvent Mediated Phase Conversions of Pharmaceutical Solids.
- 124. April 2004 PTI Training Program on Formulation & Process Development for Oral Dosage Forms, Princeton, New Jersey. Invited lecturer for short course. Role of water in solid state stability.
- 125. April 2004, Polymorphism and Crystallization Forum 2004, Princeton, New Jersey. Invisted Lecture: Raman spectroscopy for process understanding: Strengths, weaknesses and future possibilities.
- 126. March 2004, Pfizer Central Research, Groton. Invited lecture. Probing moistureinduced phase transformations
- 127. September 2003 AstraZeneca. Invited Lecture: Raman spectroscopy as a tool to characterize pharmaceutical systems
- 128. September 2003, European Polymorphism Network Meeting, Innsbruck, Austria, Invited Lecture: Intermolecular interactions in amorphous systems.
- 129. September 2003 PhandTA7 conference, Innsbruck, Austria, Keynote lecture: Hydrogen-deuterium exchange as method for probing water-solid interactions

- 130. July 2003 Eli Lilly and Company: Invited Lecture: Raman spectroscopy as a tool to characterize pharmaceutical systems
- 131. June 2003 University of Minnesota, As part of their Advanced Drug Delivery Lecture Series: Raman spectroscopy as a tool to characterize pharmaceutical systems
- 132. April 2003. Abbott Pharmaceuticals. Invited Lecture: Hydrogen bond interactions in a group of related amorphous compounds
- 133. November 2002. AAPS annual meeting, Toronto, Canada. Short course on "Understanding amorphous pharmaceutical systems" Invited Lecture: Methods for detection and quantitation of the amorphous state
- 134. June 2002. Land of the Lakes 44th Annual international industrial pharmaceutical research conference on "Strategies of formulating poorly water soluble drugs" Invited Lecture: Amorphous solid dispersions
- 135. April 2002. University of Uppsala, School of Pharmacy Seminar Series. The amorphous state; friend, foe or blind date
- 136. June 2001 Analysdagarna international conference, Stockholm. Applications of Raman spectroscopy within pharmaceutical development

SESSIONS CHAIRED/ORGANIZED

- 1) October 2010 Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) annual meeting, Rayleigh, NC. Next Generation Spectroscopic Techniques for the Analysis of Pharmaceutical Systems. Session organizer and chair.
- 2) October 2006 Association for Crystallization Technology. Solid dispersions and amorphous solids. Session co-chair.
- October 2004 Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) annual meeting, Portland, Oregan. Raman spectroscopy for Pharmaceutical Analysis. Session organizer and chair.

PRESENTATIONS AT INTERNATIONAL CONFERENCES

- Nguyen, H.T., Duong, V.T., Taylor L.S. Enteric Coating of an Amorphous Solid Dispersion: An Emerging Strategy to Enhance the Dissolution Performance in Simulated Gastrointestinal Fluids. Presented as a poster at 2022 AAPS PharmSci 360 Annual Meeting (Boston, MA, October 2022), poster number T1230-01-04.
- Deac, A., Que, C., Qi, Q., Indulkar, A. S., Gao, Y., Zhang, G. G. Z., & Taylor, L. S.. A Physical Picture of the Dissolution Process of Copovidone-Based ASDs. Presented as a poster at the 2022 AAPS PharmSci 360 Annual Meeting (Boston, MA, October 2022), poster number T0930-01-02.

- Hiew, T.N., Saboo, S., Zemlyanov D.Y., Punia, A., Smith, D., Lowinger, M., Solomos, M.A., Schenck, L., Taylor, L.S. Improving dissolution performance and drug loading of amorphous dispersions through a hierarchical particle approach. Presented as a poster at 2022 AAPS PharmSci 360 Annual Meeting (Boston, MA), poster number M1330-07-41.
- 4. Moseson, D.E., I.D. Corum, A. Lust, K.J. Altman, & L.S. Taylor. Competition Between Dissolution and Matrix Crystallization of Bicalutamide-PVPVA Amorphous Solid Dispersions Containing Residual Crystallinity. Presented as a poster at 2020 AAPS PharmSci 360 Annual Meeting (Virtual Meeting, November 2020).
- 5. Bhujbal, S.V., Pathak, V., Taylor, L.S., Zhou, Q.T. Manufacturing Lumefantrine Amorphous Solid Dispersions with Spray Anti-solvent Precipitation Method. Presented as a poster at 2020 AAPS PharmSci 360 Annual Meeting (Virtual conference, November 2019), poster number 923308.
- Correa-Soto, C. Gao, Y., Indulkar, A.S., Zhang, G.Z., Ueda, K., Taylor, L.S. Mechanistic Understanding of Drug-rich Nanodroplet Size Stabilization by Surfactants using 1H NMR. Presented as a poster at 2020 AAPS PharmaSci 360 Annual meeting (virtual conference).
- Deac, A., Que, C., Qi, Q., Ueda, K., Indulkar, A. S., Gao, Y., Zhang, G. G. Z., Taylor, L. S. The Unexpected Consequence of Drug-Polymer Interactions on Dissolution of Amorphous Dispersions. Presented as a poster at 2020 AAPS PharmSci 360 Annual Meeting (Virtual, November 2020).
- 8. Hiew, T.N., Taylor, L.S. Solid-state stability and dissolution performance of lumefantrine amorphous solid dispersions formulated with neutral and enteric polymers. Presented as a poster at the American Association of Pharmaceutical Scientists PharmSci 360 (Virtual Conference), October 2020, abstract number 894423
- 9. Hate, S., Reutzel-Edens, S. M., Taylor, L. S. Absorptive dissolution testing: An improved approach to study the impact of residual crystallinity on the performance of amorphous formulations. Presented as a poster at Gordon Research Conference Preclinical Form and Formulation for Drug Discovery, Waterville Valley, NH, June 2019.
- 10. Hate, S., Reutzel-Edens, S. M., Taylor, L. S.Improved assessment of amorphous formulations using a novel dissolution-absorption apparatus. Presented as a RapidFire Talk at AAPS Annual Meeting, San Antonio, Nov 2019.
- 11. Hate, S., Reutzel-Edens, S. M., Taylor, L. S. Absorptive dissolution testing: An improved approach to study the impact of residual crystallinity on the performance of amorphous formulations. Presented as a poster at AAPS Annual Meeting, San Antonio, Nov 2019.
- 12. Hate, S., Mosquera-Giraldo, L., Taylor, L. S. Critical considerations when using PAMPA for the assessment of membrane mass transfer from supersaturated solutions. Presented as a poster at AAPS Annual Meeting, San Antonio, Nov 2019.

- 13. Elkhabaz, A, D.E. Moseson, S. Sarkar, G.J. Simpson, P. Augustijns, & L.S. Taylor. Characterization of the Phase Behavior of Supersaturated Solutions in Biorelevant Media and Aspirated Human Fluids. Presented as a poster at 2019 Gordon Research Conference on Preclinical Form and Formulation for Drug Discovery (Waterville Valley, NH, June 2019). *Top 4 GRS poster award winner, top 25 GRC poster award winner
- Moseson, D.E., N.A. Mugheirbi, A.S. Parker, C.J. Gilpin, A.A. Stewart, S.P. Beaudoin, & L.S. Taylor. Microstructural Progression of Crystal Dissolution into Polymer Melts under Quiescent and Dynamic Conditions. Presented as a poster at 2019 Gordon Research Conference on Preclinical Form and Formulation for Drug Discovery (Waterville Valley, NH, June 2019). *Top 25 GRC poster award winner
- Moseson, D.E., A.S. Parker, C.J. Gilpin, A.A. Stewart, S.P. Beaudoin, & L.S. Taylor. Dissolution of Indomethacin Crystals into a Polymer Melt: Role of Diffusion and Fragmentation. Presented as a poster at 2019 AAPS PharmSci 360 Annual Meeting (San Antonio, TX, November 2019), poster number W0930-04-24.
- Moseson, D.E., K.J. Altman, & L.S. Taylor. Influence of Drug Particle Size on Hot Melt Extrusion Processing and Product Characteristics of Bicalutamide-PVPVA Amorphous Solid Dispersions. Presented as a poster at 2019 AAPS PharmSci 360 Annual Meeting (San Antonio, TX, November 2019), poster number M1530-08-53.
- Moseson, D.E. & L.S. Taylor. Crystal Seed Growth Poisoning by Polymeric Additives in Non-Sink Dissolution of Amorphous Solid Dispersions Containing Residual Crystallinity. Presented as a poster at 2019 AAPS PharmSci 360 Annual Meeting (San Antonio, TX, November 2019), poster number T0930-04-24.
- Parker, A.S., Taylor, L.S., Beaudoin, S.P. Impact of Polymers and Surfactants on Solid-State Crystallization at the Amorphous Pharmaceutical-Water Interface. Presented at AIChE Annual Meeting, Orlando, FL, November 2019. Presentation #198f
- Saboo, S., Kestur, U. S., Flaherty, D.P., Taylor, L. S. Impact of drug-polymer hydrogen bonding interaction on the initial drug and polymer release from tableted amorphous solid dispersions. Presented as a poster at the Gordon Research Conference on Preclinical Form and Formulation for Drug Discovery, Waterville Valley, NH, June 2019. Poster #T1430-03-020
- 20. Saboo, S., Kestur, U. S., Flaherty, D.P., Taylor, L. S. Impact of drug-polymer hydrogen bonding interaction on the initial drug and polymer release from tableted amorphous solid dispersions. Presented as a poster at AAPS Annual Meeting, San Antonio, TX, Nov 2019. Poster #T1430-03-020
- Saboo, S., Kestur, U. S., Taylor, L. S. Dissolution mechanism of amorphous solid dispersions as a function of drug loading: role of polymer hydrophobicity. Presented as a poster at AAPS Annual Meeting, San Antonio, TX, Nov 2019. Poster #M1330-04-024

- 22. Bhujbal, S., Taylor, L.S., Zhou, Q.T. Developing Efficacious and Cost-effective Lumefantrine Amorphous Solid Dispersions for Treating Malaria. Presented as a poster at Gordon Research Conference, Waterville Valley, New Hampshire, Jun 2019.
- 23. Bhujbal, S., Taylor, L.S., Zhou, Q.T. Effect of Polymer and Drug Loading on the Drug Release Profile and Solid-State Stability of Anti-Solvent Precipitated Lumefantrine Amorphous Solid Dispersions. Presented as a poster at AAPS Annual Meeting and Exposition, San Antonio, Texas, Nov 2019. Poster #M0930-05-30
- 24. Duong, T. V., Taylor, L. S. Compositional Effect of Complex Biorelevant Media on the Phase Behavior and Transformation Kinetics of a Poorly Water Soluble Weakly Basic Drug. Presented as a poster at Gordon Research Conference, Waterville Valley, New Hampshire, June 2019.
- Duong, T. V., Nguyen, T. H., Taylor, L. S. Preventing Crystallization and Improving Dissolution of Delamanid by in situ Formation of Amorphous Solid Dispersions of Sulfonate Salts. Presented as a poster at AAPS Annual Meeting, Texas, Nov 2019. Poster #T1530-04-27.
- Correa Soto, C. ,Gao, Y., Indulkar, A.S., Zhang, G. G. Z., Taylor, L.S. Surfactants as Stabilizers of the Colloidal Phase Formed Upon Amorphous Solid Dispersion Dissolution. Presented as a poster at AAPS Annual Meeting, San Antonio, TX., Nov 2019. Poster #T0930-04-25
- 27. Que, C., Zemlyanov, D. Y., Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G. G. Z., Taylor, L. S. Dissolution Behavior and Mechanistic Study of Ledipasvir-PVPVA Amorphous Solid Dispersions by Surface Area Normalized Dissolution. Presented as a poster at AAPS Annual Meeting, Washington D.C., Nov 2018. Poster #T1430-09-071
- 28. Que, C., Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G. G. Z., Taylor, L. S. Impact of Temperature Relative to the Glass Transition Temperature on the Dissolution Performance of Anacetrapib-Copovidone Amorphous Solid Dispersions. Presented as a poster at AAPS Annual Meeting, Washington D.C., Nov 2018. Poster #M0930-10-077
- 29. Hate, S., Reutzel-Edens, S., Taylor L. S. A novel absorptive dissolution testing apparatus to evaluate pharmaceutical formulations, Presented as a Rapid Fire Talk at AAPS PharmSci 360 Meeting, Washington, D.C., Nov 2018.
- 30. Hate, S., Reutzel-Edens, S., Taylor L. S. Use of a novel absorptive dissolution testing apparatus to study the impact of liquid-liquid phase separation on amorphous solid dispersion formulation performance. Presented as a poster at AAPS PharmSci 360 Meeting, Washington, D.C., Nov 2018. (Won Best Abstract Award)
- Hate, S., Reutzel-Edens, S., Taylor L. S. Absorptive dissolution testing of supersaturating systems: Impact of absorptive sink conditions on solution phase behavior and mass transport. Presented as a poster at AAPS PharmSci 360 Meeting, Washington, D.C., Nov 2018.
- 32. Saboo, S., Mugheirbi, N.A., Zemlyanov, D. Y., Kestur, U. S., Taylor, L. S. Congruent release of drug and polymer: A "sweet spot" in the dissolution of amorphous solid dispersions. Presented as a poster at AAPS PharmSci360 Meeting, Washington, DC, Nov 2018. Poster #T1430-09-065.

- 33. Van Duong, T., Turner, D. B., Taylor, L. S. Phase behavior and transformation kinetics of a poorly water soluble weakly basic drug upon transit from low to high pH conditions. Presented as a poster at AAPS Annual Meeting, Washington DC, Nov 2018. Poster No. M1330-10-074.
- Wilson, V., Lou, X., Gao, W., Zhang, G.G. Z., Taylor, L. S. The Use of Mass Transport Measurements as a Predictor of Relative in vivo Bioavailability of Enzalutamide Formulations: 2017 European Drug Absorption Network, Brussels, Belgium, March 20th, 2017
- 35. Que, C., Gao, Y., Raina, S. A., Zhang, G. G. Z., Taylor, L. S. Paclitaxel Crystal Seeds with Different Intrinsic Properties and Their Impact on the Dissolution of Paclitaxel-HPMCAS Amorphous Solid Dispersions. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2017. Poster #T6029.
- 36. Mosquera-Giraldo, L.I., Borca, C.H., Meng, X., Dong, Y., Edgar, K.J., Slipchenko, L., Taylor, L.S. From computational modelling towards mechanistic design of polymers for oral drug delivery. Presented as oral presentation at 253rd ACS National Meeting and Exposition, San Francisco, CA, April 2017. Presentation #CELL 3.
- Mosquera-Giraldo, L.I., Dong, Y., Edgar, K.J., Taylor, L.S. Crystallization inhibition properties of cellulose ethers and esters in supersaturated drug solutions. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2017. Poster #T4031.
- 38. Dong, Y., Mosquera-Giraldo, L.I, Edgar, K.J., L., Taylor, L.S. Olefin crossmetathesis: Mild, efficient and modular pathway to a new world of polysaccharide derivatives for drug delivery and applications. Presented as oral presentation at 253rd ACS National Meeting and Exposition, San Francisco, CA, April 2017. Presentation #CELL 300.
- 39. Dong, Y., Mosquera-Giraldo, L.I, Edgar, K.J., L., Taylor, L.S. Multifunctional cellulose ether derivatives for high performance amorphous solid dispersions prepared by olefin cross-metathesis and thiol-Michael addition. Presented as oral presentation at 253rd ACS National Meeting and Exposition, San Francisco, CA, April 2017. Presentation #POLY 282.
- 40. Elkhabaz, A., Sarkar, S., Dinh, J.K., Simpson, G.J., Taylor, L.S. Supersaturation and Phase Behavior of Ezetimibe Amorphous Solid Dispersions upon Dissolution in Biorelevant Turbid Media. Presented as a poster at Gordon Research Conference -Preclinical Form & Formulation for Drug Discovery, Stowe, VT, June 2017. Poster # 10.
- 41. Hate S., Reutzel-Edens S., Taylor, L.S. Absorptive dissolution testing of pharmaceutical formulations using a novel mass transport apparatus. Presented as a poster at Gordon Research Conference, Preclincal Form and Formulation for Drug Discovery, Stowe, VT, June 2017. Poster # 17.
- Patel, M.A., Luthra, S., Shamblin, S., Arora, K., Krzyzaniak, J., and Taylor, L.S. Impact of solid form on salt to free base conversion for miconazole mesylate. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2017. Poster # T0008
- 43. Patel, M.A., Luthra, S., Shamblin, S., Arora, K., Krzyzaniak, J., and Taylor, L.S. Impact of solid form on salt to free base conversion for miconazole

mesylate. Presented as a poster at Gordon Research Conference: Preclinical Form & Formulation for Drug Discovery, Stowe, VT, June 2017. Poster # 7

- 44. Li, N., Taylor, L.S. The solubility of poorly water-soluble drugs from amorphous solid dispersions impact of polymers. Presented as a poster at Gordon Research Conference: Preclinical Form & Formulation for Drug Discovery, Stowe, VT, June 2017. Poster # 29.
- 45. Dong, Y., Mosquera-Giraldo, L.I, Taylor, L.S, Edgar, K.J. Design of functionalized cellulose ethers for amorphous solid dispersions via olefin cross-metathesis. Presented as oral presentation at 251st ACS National Meeting and Exposition, San Diego, CA, Mar 2016. Presentation #CELL 60.
- 46. Dong, Y., Mosquera-Giraldo, L.I, Taylor, L.S, Edgar, K.J. Novel cellulose ether derivatives for amorphous solid dispersions prepared by olefin cross-metathesis and thiol-Michael addition. Presented as oral presentation at 252nd ACS National Meeting and Exposition, Philadelphia, PA, Aug 2016. Presentation #POLY 429.
- 47. Mosquera-Giraldo, L.I, Borca, C.H, Meng, X., Edgar, K.J, Slipchenko, L., Taylor, L.S. Mechanistic design of chemically diverse polymers with applications on pharmaceutics. Presented as a poster at 252nd ACS National Meeting and Exposition, Philadelphia, PA, Aug 2016. Poster #COMP 290.
- 48. Mosquera-Giraldo, L.I., Borca, C.H., Meng, X., Edgar, K.J., Slipchenko, L., Taylor, L.S. Experimental and computational exploration of key polymer features essential for crystallization inhibition of a poorly water soluble compound from aqueous solution. Presented as a poster at AAPS Annual Meeting, Denver, CO, Nov 2016. Poster # 01W0230.
- 49. Mosquera-Giraldo, L.I., Ye, H., Taylor, L.S. Parallel artificial membrane permeability assay to explore the phase behavior of supersaturated drug solutions. Presented as a poster at AAPS Annual Meeting, Denver, CO, Nov 2016. Poster # 01M0230.
- 50. Mosquera-Giraldo, L.I., Taylor, L.S. Phase behavior of supersaturated solutions of telaprevir created by dissolving amorphous solid dispersions. Presented as a poster at AAPS Annual Meeting, Denver, CO, Nov 2016. Poster # 01M0200.
- 51. Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G.G.Z., Taylor, L.S. (2016). Evaluation of Different Biorelevant Media to Study Crystallization of Drugs from Supersaturated Solutions. Presented as a poster at AAPS Annual meeting, Denver, USA, Nov 2016. Poster # 14R1100
- 52. Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G.G.Z., Taylor, L.S. (2016). Reservoir Effect of Nanodroplet Phase Formed upon Liquid-Liquid Phase Separation to Achieve Enhanced and Sustained Membrane Transport of Poorly Water Soluble Drug. Presented as a poster at AAPS Annual meeting, Denver, USA, Nov 2016. Poster # 32M0230.
- 53. Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G.G.Z., Taylor, L.S. (2016). Solubilization and Supersaturation of Lipophilic Drugs in the Presence of Surfactants. Presented as a poster at AAPS Annual meeting, Denver, USA, Nov 2016. Poster # 21R0930.

- 54. Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G.G.Z., Taylor, L.S. (2016). Impact of Monomeric vs. Micellar Surfactant on Nucleation-Induction Times of Atazanavir from Supersaturated Solutions. Presented as a poster at AAPS Annual meeting, Denver, USA, Nov 2016. Poster # 32W0230.
- 55. Indulkar, A. S., Gao, Y., Raina, S. A., Zhang, G.G.Z., Taylor, L.S. (2016). Reservoir Effect of Nanodroplet Phase Formed upon Liquid-Liquid Phase Separation to Achieve Enhanced and Sustained Membrane Transport of Poorly Water Soluble Drug. Presented as a poster at 51st AAPS Arden Conference, Baltimore, USA, April 2016
- 56. Wilson, V.R., Taylor, L.S. (2016). Enzalutamide Amorphous Solid Dispersions Create a Higher Activity Compared to Commercial SEDDS Formulation. Presented as a poster at PGSRM, Kansas City, USA. June 2016
- 57. Wilson, V.R., Lou, X., Gao, W., Zhang, G.G.Z., Taylor, L.S. (2016) Bioavailbility Comparison of Various Amorphous Solid Dispersion Formulations of Enzalutamide. Presented as a poster at AAPS, Denver, USA. November 2016
- 58. Tres, F., Mohutsky, M. A., Taylor, S. L. (2016). Evaluating the Impact of a Second Compound on the Solution Thermodynamics of Poorly Water-Soluble Drugs. Presented as a poster at AAPS Annual meeting, Denver, USA, Nov 2016. Poster # 09T1100.
- 59. Purohit, S. H., Taylor, S. L. (2016). Interplay of amorphous-amorphous phase separation and liquid-liquid phase separation in governing the dissolution performance of ritonavir amorphous solid dispersions. Presented as a poster at Arden conference on amorphous pharmaceuticals, Baltimore, USA, April 2016.
- Purohit, S. H., Gao, Y., Lopour, M., Zhang, G. Z. G., Taylor, S. L. (2016). Impact of crystallinity on the dissolution behavior of felodipine amorphous solid dispersions. Presented as a poster at AAPS Annual meeting, Orlando, USA, November 2016. Poster # 23R1130.
- 61. Purohit, S. H., Saboo, S., Su, Y., Ormes, D. J., Lamm, S. M., Mann, K. P. A., Minnihan, E., Taylor, S. L. (2016). High Resolution Analytical Methodologies to Study Drug-Polymer Miscibility in Amorphous Solid Dispersions. Presented as a poster at AAPS Annual meeting, Orlando, USA, November 2016. Poster # 13R1030.
- 62. Purohit, S. H., Taylor, S. L. (2016). Interplay of amorphous-amorphous phase separation and liquid-liquid phase separation in governing the dissolution performance of ritonavir amorphous solid dispersions. Presented as a poster at AAPS annual meeting, Orlando, USA, November 2016. Poster # 23M0330.
- 63. Purohit, S. H., Osterling, J. D., Jenkins, J. G., Stolarik, F. D., Gao, W., Gao, Y., Zhang, G. Z. G., Taylor, S. L. (2016). Effect of crystallinity on the bioavailability of marketed tacrolimus amorphous solid dispersions. Presented as a poster at AAPS annual meeting, Orlando, USA, November 2016. Poster # 06R0900.
- 64. Purohit, S. H., Gao, Y., Zhang, G. Z. G., Sun, D., Wen, H., Taylor, S. L. (2016). Limitations in the pharmacopeial dissolution testing of marketed tacrolimus

amorphous solid dispersions. Presented as a poster at AAPS annual meeting, Orlando, USA, November 2016. Poster # 20R1100.

- 65. Alhalaweh, A., Bergström, C.A.S., Taylor, S. L. (2015). Compromised dissolution properties of multicomponent amorphous formulations. Presented as a poster at AAPS Annual meeting, Orlando, USA, Oct 2015. Poster # R6098.
- 66. Alhalaweh, A., Bergström, C.A.S., Taylor, S. L. (2015). Maximum achievable supersaturation and membrane transport of amorphous drug formulations in coadministered with a crystalline drug. Presented as a poster at AAPS Annual meeting, Orlando, USA, Oct 2015. Poster # R6099
- 67. Sato T. and Taylor L. S., Chiral Discrimination by a Cellulose Polymer: Differential Crystallization Inhibition of Enantiomers in Amorphous Dispersions. Presented as a poster at AAPS Annual meeting, Orlando, Fla, Oct 2015. Poster # R6094.
- Indulkar A. S. and Taylor L. S., pH-Dependent Liquid-Liquid Phase Separation of Highly Supersaturated Solutions of Weakly Basic Drugs. Presented as poster at Chicagoland Pharmaceutical Discussion Group, AAPS mini-symposium, Westmont, IL, May 2015.
- 69. Indulkar A.S., Zhang G. G. Z., Gao Y., Raina S. A. and Taylor L. S., Impact of surfactants on amorphous solubility and degree of supersaturation. Presented as a poster at AAPS Annual meeting, Orlando, FL, Oct 2015. Poster # M1277.
- 70. Indulkar A.S., Zhang G. G. Z., Gao Y., Raina S. A. and Taylor L. S., Understanding the mechanism of micellar solubilization of drugs in supersaturated systems. Presented as a poster at AAPS Annual meeting, Orlando, FL, Oct 2015. Poster # W5121.
- 71. Mosquera-Giraldo, L.I., Meng, X., Dong, Y., Edgar, K.J., Taylor, L.S., Impact of chemically diverse polymers on the nucleation induction times of highly supersaturated drug solutions of telaprevir, Presented as a poster at AAPS Annual Meeting, Orlando, FL, Oct 2015. Poster # R6092
- 72. Mosquera-Giraldo, L.I., Taylor, L.S., Cryo-Scanning Electron Microscopy (cryo-SEM) as an imaging technique to explore the phase behavior of highly supersaturated drug solutions, Presented as a poster at AAPS Annual Meeting, Orlando, FL, Oct 2015. Poster # R6093.
- 73. Mosquera-Giraldo, L.I., Arca, H., Edgar, K.J, Taylor, L.S., Influence of Drug-Drug Miscibility on the Drug Release in a Three Component Amorphous Solid Dispersion, Presented as a poster at AAPS Annual Meeting, Orlando, FL, Oct 2015. Poster # W4223.
- 74. Santiago, D., Mosquera, L., Taylor, L., Molecular Mobility As a Tool for Understanding the Impact of Polyvinylpyrrolidone (polymer) and Tpgs (surfactant) in Crystallization Kinetics of Amorphous Celecoxib, Presented as a poster at AIChE Annual Meeting: Pharmaceutical discovery, development and manufacturing forum, Salt Lake City, UT, Nov 2015. Poster # 408475
- 75. Santiago, D., Mosquera, L., Taylor, L., A Rheological Study of Amorphous Celecoxib during Crystallization from the Undercooled Melt State, Presented as a poster at AAPS Annual Meeting, Orlando, FL, Oct 2015. Poster # T2033
- 76. Trasi N. S. and Taylor L. S., Phase behavior of binary poorly water soluble solutes in highly supersaturated solutions, Presented as a poster at AAPS Annual meeting, Orlando, FL, Oct 2015. Poster # M1250.

- 77. Trasi N. S. and Taylor L. S., Solubility and dissolution of binary co-amorphous ritonavir-lopinavir solid dispersions, Presented as a poster at AAPS Annual meeting, Orlando, FL, Oct 2015. Poster # M1251
- 78. Trasi N. S. and Taylor L. S., Dissolution behavior and solubility of marketed amorphous solid dispersions of Tacrolimus, Presented as a poster at AAPS Annual meeting, Orlando, FL, Oct 2015. Poster # M1252
- Trasi N. S. and Taylor L. S., Stability of marketed Tacrolimus amorphous dispersions against crystallization, Presented as a poster at AAPS Annual meeting, Orlando, FL, Oct 2015. Poster # M1253
- 80. Purohit H. S. and Taylor L. S., Assessing the impact of processing conditions on the microstructure of amorphous solid dispersions. Presented as a poster at NSF Site visit, Engineering Research Center. New Jersey Institute of Technology, NJ, April 2015.
- Purohit H. S. and Taylor L. S., Miscibility of itraconazole-hydroxypropyl methylcellulose blends revisited- insights with high resolution analytical methodologies. Presented as a poster at Chicagoland Pharmaceutical Discussion Group symposium, Westmont, IL, May 2015.
- 82. Purohit H. S. and Taylor L. S., Impact of polymer type and drug loading on the supersaturation behavior of amorphous solid dispersions. Presented as a poster at AAPS Annual meeting, Orlando, FA, Oct 2015. Poster # W5126.
- Purohit H. S. and Taylor L. S., Phase separation in amorphous solid dispersions during hydration and dissolution. Presented as a poster at AAPS Annual meeting, Orlando, FA, Oct 2015. Poster # W5127.
- 84. Li, N., Ormes, J. D., Taylor, L. S., Leaching of components from lopinavir-enteric polymer amorphous solid disperisons in acidic media. Presented as a poster at AAPS Annual meeting, Orlando, FL, Oct 2015. Poster #M1231.
- Li, N., Ormes, J. D., Taylor, L. S., Bile salts have different abilities to inhibit crystallization in supersaturated aqueous solutions of poorly water-soluble compounds. Presented as a poster at AAPS Annual meeting, Orlando, FL, Oct 2015. Poster #M1232.
- Purohit H. S. and Taylor L. S., Miscibility of itraconazolehydroxypropylmethylcellulose blends –insights with novel analytical methodologies. Presented as a poster at AAPS Annual meeting, San Diego, CA, Nov 2014. Poster # R6198.
- 87. Purohit H. S. and Taylor L. S., Fluorescence spectroscopy as an analytical tool to detect phase changes in amorphous systems. Presented as a poster at AAPS Annual meeting, San Diego, CA, Nov 2014. Poster # R6196.
- Purohit H. S. and Taylor L. S., Phase behavior of amorphous solid dispersions during dissolution. Presented as a poster at AAPS Annual meeting, San Diego, CA, Nov 2014. Poster # R6197.
- Tian, X., Taylor L. S., Improved Amorphous Solid Dispersion Performance Using Binary Polymer Combinations. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2014. Poster # R6230
- 90. Tian, X., Taylor L. S., Effectiveness of Different Polymers as Crystallization Inhibitors at Different Supersaturations—Implications for Amorphous Solid

Dispersion Performance. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2014. Poster # R6229

- 91. Almeida e Sousa L., Stephenson G., Taylor L.S., Investigation of the Phase Behavior of Highly Supersaturated Solutions of Poorly Water Soluble Drugs. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2014. Poster # R6113.
- 92. Jackson, M.J. and Taylor, L.S. Characterization of Solution Phase Behavior during the Dissolution of Amorphous Solid Dispersions. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2014. Poster # R6156
- 93. Jackson, M.J. and Taylor, L.S. Effect of Polymers on the Phase Behavior and Crystallization Kinetics of Supersaturated Danazol Solutions. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2014. Poster # R6157
- 94. Indulkar A.S., Taylor L. S., Amorphous solubility profile of clotrimazole as a function of pH. Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2014. Poster # R6155
- 95. Mosquera-Giraldo, L.I., Taylor, L.S., Glass-Liquid Phase Separation in Highly Supersaturated Aqueous Solutions of Telaprevir, Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2014. Poster # R6183
- 96. Mosquera-Giraldo, L.I., Dong, Y., Edgar, K., Taylor, L.S., Impact of Cellulose Polymers on Maintaining Supersaturation in Aqueous Solutions of Telaprevir, Presented as a poster at AAPS Annual Meeting, San Diego, CA, Nov 2014. Poster # R6184
- 97. Raina S.A. Alonzo, D.E., Zhang G. G. Z., Yi. G., Taylor L. S., UV-Visible Spectroscopic Evaluation of Phase Behavior of Supersaturated Solutions of Dihydropyridines. Presented as a poster at AAPS Annual Meeting, San Antonio, TX, Nov 2013. Poster # W5182
- 98. Raina S.A. Alonzo, D.E., Zhang G. G. Z., Yi. G., Taylor L. S., Predicting Trends in Crystallization Behavior of Supersaturated Solutions using Synchrotron Radiation. Presented as a poster at AAPS Annual Meeting, San Antonio, TX, Nov 2013. Poster# W5181
- 99. Raina S.A. Alonzo, D.E., Zhang G. G. Z., Yi. G., Taylor L. S., Quantitative Predictions of Nifedipine Polymorphic Transitions Using In-Line Raman Spectroscopy, Principle Component Analysis and Multivariate Curve Resolution, Presented as a poster at AAPS Annual Meeting, San Antonio, TX, Nov 2013.Poster#5226
- 100. Raina S.A. Alonzo, D.E., Zhang G. G. Z., Yi. G., Taylor L. S., Using Environment Sensitive Fluorescence Probes to Estimate Amorphous Solubility and Characterize Liquid-Liquid Phase Separation Behavior in Highly Supersaturated Solutions of Poorly Water-Soluble Compounds, Presented as a poster at AAPS Annual Meeting, San Antonio, TX, Nov 2013.Poster#T3167
- 101. Raina S. A., Alonzo D. E., Wu. J., Catron N., Zhu D., Zhang G. G. Z., Yi. G., Taylor L. S., Relationship Between Supersaturation and Diffusion Rates Across

Semipermeable Membranes- Impact of Liquid-Liquid Phase Separation. Presented as a poster at AAPS Annual Meeting, San Antonio, TX, Nov 2013. Poster#W5180

- 102. Jackson M.J. and Taylor L.S. Phase Behavior of Supersaturated Danazol Solutions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, TX, November 2013, Abstract AM-13-0688.
- 103. Trasi N. S., and Taylor L.S. Factors influencing crystal growth rates from amorphous supercooled liquids. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, TX, November 2013, Abstract AM-13-2061
- 104. Wegiel L.A., Mauer L.J., Edgar K.J., and Taylor L.S. Curcumin Amorphous Solid Dispersions: The Role of Intra and Intermolecular Bonding on Physical Stability. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, October 2012, Abstract AM-12-01385.
- 105. Wegiel L.A., Mauer L.J., Edgar K.J., and Taylor L.S. Assessment of Molecular Drug-Polymer Interactions by Mid-Infrared Spectroscopy as a Polymer Selection Tool for Formulating Amorphous Solid Dispersions with Optimal Physical Stability. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, October 2012, Abstract AM-12-01366.
- 106. Wegiel L.A., Mauer L.J., Edgar K.J., and Taylor L.S. Curcumin Amorphous Solid Dispersions: The Role of Intra and Intermolecular Bonding on Physical Stability. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, October 2012, Abstract AM-12-01385.
- 107. Wegiel L.A., Mauer L.J., Edgar K.J., and Taylor L.S. Assessment of Molecular Drug-Polymer Interactions by Mid-Infrared Spectroscopy as a Polymer Selection Tool for Formulating Amorphous Solid Dispersions with Optimal Physical Stability. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, October 2012, Abstract AM-12-01366.
- 108. Hsieh, Y.-L., Yu, W., Xiang, Y., Pan, W., Waterman, K.C., Shalaev, E., Shamblin, S., Taylor, L.S. Relationship between Ionization State and Oxidation of Sertraline in Powder Blends. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W5096
- 109. Hsieh, Y.-L., Box, K.C., Taylor, L.S. Evaluating Polymer Effectiveness in Maintaining Supersaturation using pH-metric Titration. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W5158
- 110. Ilevbare, G. A., Liu, H., Edgar, K. J., Taylor, L. S. Understanding Polymer Properties Important for Crystal Growth Inhibition – Impact of Chemically Diverse Polymers on Solution Crystal Growth of Ritonavir. Presented as an oral presentation and poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W5161.

- 111. Ilevbare, G. A., Liu, H., Edgar, K. J., Taylor, L. S. Inhibiting Crystal Formation (Nucleation) of Model Compounds from Supersaturated Solutions Using Novel Cellulose Polymers. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W5160.
- 112. Ilevbare, G. A., Liu, H., Edgar, K. J., Taylor, L. S. Inhibiting Crystal Growth of Ritonavir by Novel Cellulose Polymers – Factors Influencing Polymer Effectiveness. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W5162.
- 113. Ilevbare, G. A., Taylor, L. S. Determining the Maximum Concentration Achievable by Amorphous Solids – Liquid-Liquid Phase Separation (LLPS). Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W5097.
- 114. Trasi, N.S., Taylor, L.S. To determine the effect of polymers on crystal growth and nucleation of amorphous acetaminophen. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 16 October 2012, Abstract T3292
- 115. Trasi, N.S., Taylor, L.S. To determine the effect of polymers and a small molecule on crystal growth and nucleation of amorphous flutamide. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W5131
- 116. Trasi, N.S., Taylor, L.S. To evaluate and characterize the solid forms of nilutamide and its sub-Tg nucleation behavior. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W 5132
- 117. Trasi, N.S., Taylor, L.S. To determine the effect of polymers on nucleation of acetaminophen (APAP) from supersaturated solutions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 18 October 2012, Abstract R6293
- 118. Raina, S.A., , Alonzo D.E., Zhang G.Z, Zhou, D., Gao, Y., Taylor, L.S., Understanding Differences in Polymeric Impact on Solution Nucleation of Dihydropyridine Derivatives. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Chicago, IL, 17 October 2012, Abstract W5187.
- 119. Shweta A. Raina, David E. Alonzo, Geoff G. Z. Zhang, Deliang Zhou, Yi Gao and Lynne S. Taylor Impact of Polymers on Aqueous Routes of Crystallization. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Washington, DC, 26 October 2011, Abstract W4351.
- 120. Van Eerdenbrugh, B. Lo, M. Kjoller, K. Shetty, R. Taylor, L. S. Assessment of the miscibility behavior of dextran-PVP systems using AFM-IR analysis. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Washington, DC, 10/23/2011-10/27/2011.

- 121. Van Eerdenbrugh, B. Lo, M. Kjoller, K. Shetty, R. Taylor, L. S. AFM-IR analysis for the evaluation of moisture-induced phase separation of solid dispersions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Washington, DC, 10/23/2011-10/27/2011.
- 122. Van Eerdenbrugh, B. Lo, M. Kjoller, K. Shetty, R. Taylor, L. S. Submicron resolution miscibility assessment of dextran-PVP systems using AFM-IR analysis. Presented as a poster at the FACSS 2011 meeting, Reno, NV, 10/02/2011-10/06/2011.
- 123. Van Eerdenbrugh, B. Lo, M. Kjoller, K. Shetty, R. Taylor, L. S. AFM-IR analysis for the evaluation of phase separation in felodipine-PAA solid dispersions. Presented as a poster at the FACSS 2011 meeting, Reno, NV, 10/02/2011-10/06/2011.
- 124. Kwok, K., Taylor, L. S. Detection and analysis of counterfeit medicines using Raman microscopy and multivariate curve resolution Presented as a poster at the 2011 United States Pharmacopeia Science and Standard Symposium, Seattle, WA. October 2011.
- 125. Kwok, K., Wegiel, L. A., Rumondor, A. C., and Taylor, L. S. Study of drug-polymer intermolecular interactions using Fourier transform infrared spectroscopy and multivariate curve resolution Presented as a poster at the 62nd meeting of The Pittsburgh Conference, Atlanta, GA. March 2011, Poster 970-2P.
- 126. Kwok, K., Taylor, L. S. Analysis of counterfeit packaging using Raman imaging and generalized two-dimensional correlation spectroscopy Presented as a poster at the 62nd meeting of The Pittsburgh Conference, Atlanta, GA. March 2011, Poster 970-4P.
- 127. Hsieh, Y.-L., Taylor, L.S. Salt Disproportionation Kinetics in the Presence of a Common Pharmaceutical Excipient. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Washington, DC, 26 October 2011, Abstract W4269
- 128. Hsieh, Y.-L., Box, K., Taylor, L.S. Determination of Polymer Effectiveness in Maintaining Supersaturation of Weakly Basic Drugs – Evaluation using pH-Metric Titration. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Washington, DC 26 October 2011, Abstract W4323
- 129. Hsieh, Y.-L., Ilevbare, G., Box, K., Sanchez-Felix, M. V., Taylor, L.S. Utilization of pH-Metric Titration to Evaluate the Supersaturation Behavior of Weakly Basic Drugs. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Washington, DC, 26 October 2011, Abstract W5350
- 130. Wegiel, L.A. Mauer, L.J. Taylor, L.S. Evaluation of Intermolecular Interactions in Solid Dispersions of Polyphenols. Presented as a poster at the Federation of Analytical Chemistry and Spectroscopy Societies Annual Meeting, Reno, NV, 3 October 2011, Abstract 39177
- 131. Ilevbare, G. A., Taylor, L. S. Effect of Submicron Particles on Solution Concentration Determination Using UV/Vis Fiber-Optics Probes. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Washington, DC, 25 October 2011, Abstract T2270.

- 132. Ilevbare, G. A., Edgar, K. J., Taylor, L. S. Understanding the Duration of Supersaturation in Aqueous Solutions – Nucleation and Crystal Growth studies of Ritonavir. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Washington, DC, 26 October 2011, Abstract W4324.
- 133. Hsieh, Y-L. Taylor, L.S. Disproportionation of Benzocaine Mesylate and Miconazole Mesylate in the Presence of Disintegrants. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 16 November 2010, Abstract T3106
- 134. Hsieh, Y-L. Taylor, L.S. Evaluation of Crystallization from Loratadine Supersaturated in Solution in the Presence and Absence of Polymers. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 16 November 2010, Abstract T3105
- 135. Zhu Q. Taylor L.S. Evaluation of the Microstructure of Semicrystalline Solid Dispersions. Presented as an oral presentation at the American Institute of Chemical Engineers Annual Meeting, Salt Lake City, UT, 09 November 2010, Abstract 188260.
- 136. Ilevbare, G. A., Rivera, K., Kar, N., Edgar, K. J., Taylor L.S. Elucidating the Mechanism of Crystallization Inhibition from Supersaturated Solutions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 18 November 2010, Abstract R6030.
- 137. Kestur U.S, Wanapun D, Simpson D.J and Taylor L.S, Non Linear Optical Imaging for Highly Sensitive Detection of Crystals in Bulk Amorphous Powders. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 18 November 2010, Poster # 2359.
- 138. Kestur U.S, Ivanesivic I, Alonzo D.E and Taylor L.S, Effect of Particle Size on Bulk Powder Crystallization. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 18 November 2010, Poster # 3184.
- 139. Wanapun D, Kestur U.S, Taylor L.S, and Simpson D.J, Qualitative and Quantitative Analysis of API by SHG Microscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 18 November 2010, Poster # 3326.
- 140. Wegiel L.A. Mauer L.J. Edgar K.J. Taylor L.S. Disruption of Molecular Self Assembly in Amorphous Solid Dispersions of Polyphenols. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 16 November 2010, Abstract T3133.
- 141. Baird J. Taylor L.S. Exploring the Crystallization Behavior of Pharmaceutical API's During Cooling and Reheating from Undercooled Melts. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 16 November 2010, Abstract T3089.

- 142. Baird J., Santiago D., Rinaldi C. and Taylor L.S. Characterizing the Rheological Behavior of Pharmaceutical API's in the Undercooled Melt State. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 16 November 2010, Abstract T3088.
- 143. Baird J. Taylor L.S. Investigating the Effect of Polymeric Additives in Altering the Critical Cooling and/or Critical Heating Rate of Pharmaceutical API's from Undercooled Melts. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 18 November 2010, Abstract R6010.
- 144. Baird J. Taylor L.S. Understanding Crystallization Tendency of Organic Molecules and the Ability of Polymers to Alter Crystallization Behavior. Presented at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 18 November 2010, Abstract R6009.
- 145. Baird J., Chapman, K., Chupas, P. Byrn, S., Taylor L.S. Probing the Liquid/Glass Structure of Pharmaceutical API's Through Pair Distribution Function Analysis of High Energy X-ray Scattering Data. Presented at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 17 November 2010, Abstract W5174.
- 146. Baird J., Thomas, L. and Taylor L.S. Evaluating Crystallization Behavior of Pharmaceutical API's Using Rapid-Scanning Differential Scanning Calorimetry. Presented at the American Association of Pharmaceutical Scientists Annual Meeting, New Orleans, LA, 17 November 2010, Abstract W5173.
- 147. Baird J. Taylor L.S. Understanding Crystallization Tendency of Organic Molecules and the Ability of Polymers to Alter Crystallization Behavior. Presented at the Graduate Student Symposium for Formulation Design and Development, AAPS Annual Meeting, New Orleans, LA, 14 November 2010.
- 148. Baird J.; Van Eerdenbrugh, B., Taylor L.S. Crystallization Tendency of Active Pharmaceutical Ingredients and the Ability of Polymers Additives to Alter Crystallization Behavior from Undercooled Melts. Presented at the AIChE Annual Meeting, Salt Lake City, UT, 8 November 2010, Abstract 88c.
- 149. Van Eerdenbrugh, B., Alonzo, D.A., Kerai, P., Taylor, L.S. Assessing the applicability of in situ UV/VIS-probes for the measurement of dissolution kinetics. AAPS Annual Meeting and Exposition. New Orleans, 14-18 November 2010. Abstract No. M1408.
- 150. Van Eerdenbrugh, B., Taylor, L.S. Evaluation of the Ability of Different Polymers to Inhibit Drug Crystallization upon Rapid Solvent Evaporation – Development of a Small Scale Screening Method. AAPS Annual Meeting and Exposition. New Orleans, 14-18 November 2010. Abstract No. T3145.
- 151. Van Eerdenbrugh, B., Taylor, L.S. Reverse crystal engineering; disruption of the crystal lattice through drug-polymer molecular recognition events. AAPS Annual Meeting and Exposition. New Orleans, 14-18 November 2010. Abstract No. T3146.

- 152. Van Eerdenbrugh, B., Lo, M., Kjoller, K., Taylor, L.S. Nanoscale IR spectroscopy a novel tool for miscibility studies. AAPS Annual Meeting and Exposition. New Orleans, 14-18 November 2010. Abstract No. T3325.
- 153. Van Eerdenbrugh, B., Stanford, L.A., Baird, J.A., Bates, S., Chapman, K., Chupas, P., Taylor, L.S., Byrn, S.R. Documenting the effect of Q-range on the Pair Distribution Functions (PDFs) obtained for pharmaceutically relevant systems. AAPS Annual Meeting and Exposition. New Orleans, 14-18 November 2010. Abstract No. W5228.
- 154. Van Eerdenbrugh, B., Baird, J.A., Taylor, L.S. Evaluation of the inhibitory performance of polymers on drug crystallization in amorphous solid dispersions using low molecular weight analogues – I solubility studies. AAPS Annual Meeting and Exposition. New Orleans, 14-18 November 2010. Abstract No. W5230.
- 155. Van Eerdenbrugh, B., Baird, J.A., Taylor, L.S. Evaluation of the inhibitory performance of polymers on drug crystallization from amorphous solid dispersions using low molecular weight analogues II infrared studies. AAPS Annual Meeting and Exposition. New Orleans, 14-18 November 2010. Abstract No. W5229.
- 156. Van Eerdenbrugh, B., Chapman, K., Byrn, S.R., Taylor, L.S. The use of synchrotron radiation to determine Pair Distribution Functions (PDFs) for the evaluation of miscibility in solid dispersions. AAPS Annual Meeting and Exposition. New Orleans, 14-18 November 2010. Abstract No. W5231.
- 157. Van Eerdenbrugh, B., Baird, J.A., Taylor, L.S. Crystallization Tendency of Amorphous Pharmaceuticals Prepared by Rapid Solvent Evaporation: Classification, Comparison with Undercooled Melts and Interpretation in Terms of Physico-Chemical Drug Compound Characteristics. AIChE annual meeting. Salt Lake City, 7-12 November 2010, Abstract No. 141e
- 158. Van Eerdenbrugh, B., Taylor, L.S. Evaluation of the Ability of Different Polymers to Inhibit Drug Crystallization Upon Rapid Solvent Evaporation – Development of a Small Scale Screening Method. AIChE annual meeting. Salt Lake City, 7-12 November 2010, Abstract No. 30c
- 159. Baird, J.A., Van Eerdenbrugh, B., Taylor, L.S. Crystallization Tendency of Active Pharmaceutical Ingredients and the Ability of Polymeric Additives to Alter Crystallization Behavior From Undercooled Melts. AIChE annual meeting. Salt Lake City, 7-12 November 2010, Abstract No. 88c
- L.S. Taylor, L.J. Mauer. 2010. Fundamentals, effects, and consequences of deliquescence in multicomponent food systems. IFT Annual Meeting and Food Expo. Chicago, IL.
- R. Lipasek, N. Li, M. West, L.S. Taylor, L.J. Mauer. 2010. Effects of temperature on deliquescence and deliquescence lowering. IFT Annual Meeting and Food Expo. Chicago, IL.
- 162. R. Lipasek, L.S. Taylor, L.J. Mauer. 2010. The effects of anticaking agents, temperature, and relative humidity on the chemical and physical stability of powdered vitamin C. IFT Annual Meeting and Food Expo. Chicago, IL.

- 163. Van Eerdenbrugh B.,Baird J., Taylor L.S., Comparison of the crystallization tendency of API's prepared by melt and solvent evaporation based techniques. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract M1358
- 164. Van Eerdenbrugh B., Taylor L.S., Crystallization behavior of API's prepared by spincoating from solution. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract M1357
- 165. Baird J.A., Taylor L.S. Assessing the Crystallization Tendency of Organic Molecules from the Undercooled Melt State. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract M1298.
- 166. Kestur U.S and Taylor L.S. Effect of PVP Content on Growth Rate of Felodipine from Amorphous Solid Dispersions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009. Poster # T3398
- 167. Kestur U.S and Taylor L.S. Inhibitory Effect of Polymers on Crystallization Tendency of Amorphous Bifonazole. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009. Poster # 3399
- 168. Kestur U.S and Taylor L.S. Effect of Relative Humidity on Polymorphic Conversion of Felodipine. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009. Poster # 3337
- 169. Wanapun D, Kestur U.S, Taylor L.S, and Simpson D.J. Early detection of API crystal nucleation: Observing an invisible crystal. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009. Poster # R6011
- 170. Kwok, K., Mauer, L. J., Taylor, L. S. Deliquescence of Pharmaceutical and Food ingredients: The Effect of Relative Humidity on the Chemical Stability of the Sucrosecitric acid System. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract W4031.
- 171. Kwok, K., Mauer, L. J., Taylor, L. S. Phase Behavior of Model Deliquescent Systems. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract W4303.
- 172. Alonzo, D., Zhang, G., Zhou, D., Yi G., Taylor, L.S. Crystallization Behavior of Amorphous Pharmaceuticals During Dissolution. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract W4344.
- 173. Alonzo, D., Zhang, G., Zhou, D., Yi G., Taylor, L.S. Dissolution Behavior of Amorphous Pharmaceuticals in the Presence and Absence of Polymers. Presented as a

poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract W4343.

- 174. Alonzo, D., Zhang, G., Zhou, D., Yi G., Taylor, L.S. Enhanced Dissolution of Solid Dispersions with Low Drug Loading. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract W4342.
- 175. Zhu Q., Taylor, L.S., Harris M.T., Solid-state structure of drug/polyethylene glycol dispersions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, CA, November 2009, Abstract 1204.
- 176. Konno H, Handa T, Alonzo D, Taylor L.S. Effect of Polymers on Dissolution of Solid Dispersion Particles. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Los Angeles, November 2009, Abstract T3343.
- 177. L. J. Mauer, J. Ortiz, U. Kestur, L. S. Taylor. 2009. Relationship between catechin stability and moisture-induced phase transformations in powdered green tea formulations. Institute of Food Technologists' Annual Meeting and Food Expo. Anaheim, CA.
- 178. A. Hiatt, L.S. Taylor, L.J. Mauer. 2009. Influence of different vitamin forms on deliquescence behavior and chemical stability of vitamin C. Institute of Food Technologists' Annual Meeting and Food Expo. Anaheim, CA.
- 179. A. M. Stoklosa, D. E. Nivens, L.S. Taylor, L. J. Mauer. 2009. Atomic force microscopy investigation of deliquescence lowering induced by capillary condensation in binary crystalline mixtures. Institute of Food Technologists' Annual Meeting and Food Expo. Anaheim, CA.
- L.J. Mauer and L.S. Taylor. 2009. Fundamentals, consequences, and effects of deliquescence in multicomponent systems. USDA-NRI Project Directors Meeting. Anaheim, CA.
- 181. K. Kwok, L.J. Mauer and L.S. Taylor. 2009. Deliquescence of pharmaceutical and food ingredients: The relationship between relative humidity and surface properties of single and binary systems. Institute of Food Technologists' Annual Meeting and Food Expo. Anaheim, CA.
- 182. K. Kwok, L.J. Mauer and L.S. Taylor. 2009. Deliquescence of pharmaceutical and food ingredients: The effect of relative humidity on the chemical stability of the sucrose-citric acid system. Institute of Food Technologists' Annual Meeting and Food Expo. Anaheim, CA.
- 183. K. Kwok, L.J. Mauer and L.S. Taylor. 2009. Deliquescence of pharmaceutical and food ingredients: Phase transition of model systems and moisture sorption studies. Institute of Food Technologists' Annual Meeting and Food Expo. Anaheim, CA.
- 184. 12. M. Loewen, A. Hiatt, L.S. Taylor, L.J. Mauer. 2009. Influence of deliquescence, formulation, and storage conditions on stability of vitamin C in commercially available supplement powders. Institute of Food Technologists' Annual Meeting and Food Expo. Anaheim, CA.

- 185. Kwok, K., Mauer, L. J., and Taylor, L. S. Deliquescence of pharmaceutical and food ingredients: Phase transition of model systems and moisture sorption studies. Presented as a poster (PHYS 328) at the American Chemical Society National Meeting, Salt Lake City, UT, March 2009.
- 186. Kwok, K., Mauer, L. J., and Taylor, L. S. Deliquescence of pharmaceutical and food ingredients: The effect of relative humidity on the chemical stability of the sucrosecitric acid system. Presented as a poster (PHYS 329) at the American Chemical Society National Meeting, Salt Lake City, UT, March 2009.
- 187. Kwok, K., Stoklosa, A. M., Nivens, D. E., Mauer, L. J., and Taylor, L. S. Deliquescence of pharmaceutical and food ingredients: The relationship between relative humidity and surface properties of single and binary systems. Presented as a poster (COLL 239) at the American Chemical Society National Meeting, Salt Lake City, UT, March 2009.
- 188. Baird J., Taylor, L.S. Eutectic Point of Drug-Polyethylene Glycol Solid Dispersions: Feasibility of Semi-Empirical Model in Predicting Eutectic Point. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, GA, November 2008, Abstract T3190.
- 189. Baird J., Taylor, L.S. Polyethylene Glycol Characterization: Effect of Molecular Weight on Deliquescence Relative Humidity. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, GA, November 2008, Abstract T3189.
- 190. Guerrieri P., Zemlyanov D. and Taylor, L.S. Probing the State of Water on the Surface of Pharmaceutical Salts by X-ray Photoelectron Spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, 2008, Abstract T3202.
- 191. Guerrieri P. and Taylor, L.S. Role of Counterion in Dictating the Hygroscopicity of Salts of a Model Pharmaceutical Compound. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, 2008, Abstract T3203.
- 192. Guerrieri P., Zemlyanov D. and Taylor, L.S. Effect of Moisture on the Surface Chemistry of Pharmaceutical Salts - Invesitgation by X-ray Photoelectron Spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, 2008, Abstract T3204.
- 193. Guerrieri P. and Taylor, L.S. Effect of Counterion on Chemical Stability of a Model Pharmaceutical Salt. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, 2008, Abstract T3205.
- 194. Rumondor A., Stanford L., and Taylor L. S. Comparison of Different Calculation Methods to Quantify Drug Crystallinity in Amorphous Solid Dispersion Systems. Presented at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, GA, Abstract T3223.

- 195. Rumondor A., Marsac P. J., Stanford L., and Taylor L. S. Investigation of Moistureinduced Immiscibility in Different Poly(Vinylpyrrolidone)-containing Amorphous Solid Dispersion Systems. Presented at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, GA, 2008, Abstract T3224.
- 196. Rumondor A., Stanford L., and Taylor L. S. Effects of Moisture on Crystallization Rate of Felodipine from Amorphous Solid Dispersions.Presented at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, GA, 2008, Abstract T3225.
- 197. Rumondor A., Jackson M., and Taylor L. S. Effect of Moisture and Polymers on the Crystal Growth Rates of Felodipine from Amorphous Films. Presented at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, GA, November 2008, Abstract T3226.
- 198. Rumondor A., Bates S., Ivanisevic I., and Taylor L. S. Experimental Methods to Investigate Drug-Polymer Miscibility in Amorphous Solid Dispersion Systems. Presented at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, GA, 2008, Abstract T3227.
- 199. Alonzo D., Zhang G., Wu J., Zhou D., Yi G., Taylor, L.S. Crystallization Inhibition of Supersaturated Solutions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, 2008, Abstract W5147
- 200. Kestur Satyanarayana,U. and Taylor, L.S. Inhibitory Effect of Polymers on Crystal Growth Rate of Felodipine from Amorphous Solid Dispersions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta,2008, Abstract T3209.
- 201. Kestur Satyanarayana, U. and Taylor, L.S. Effect of Polymer Molecular Weight on Crystal Growth Rate of Felodipine from Amorphous Solid Dispersions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Atlanta, 2008, Abstract T3210.
- 202. Hiatt A., Ferruzzi M.G., Taylor L.S., Mauer L.J. 2008. Impact of deliquescence on select B vitamin chemical stability. Institute of Food Technologists' Annual Meeting and Food Expo. New Orleans, LA.
- 203. Ortiz J., Hiatt A., Ferruzzi M.G., Taylor L.S., Mauer L.J. 2008. Effects of deliquescence and citric acid addition on ascorbic acid degradation. Institute of Food Technologists' Annual Meeting and Food Expo. New Orleans, LA.
- 204. Stoklosa A., Taylor L.S., Mauer L.J. 2008. Water-solid interactions of dry powder blends containing non-nutritive sweeteners. Institute of Food Technologists' Annual Meeting and Food Expo. New Orleans, LA.
- 205. Stoklosa A., Taylor L.S., Mauer L.J. 2008. Effect of particle size on the deliquescent behavior of food additive mixtures. Institute of Food Technologists' Annual Meeting and Food Expo. New Orleans, LA.

- 206. Mauer L.J. and Taylor L.S. 2008. Fundamentals, consequences, and effects of deliquescence in multicomponent systems. USDA-NRI Project Directors Meeting. New Orleans, LA.
- 207. Zhu Q., Baird J., Taylor L. and Harris M. Crystallization Behavior and Microstructural Characterization of Drug-Polyethylene Glycol Dispersions. Presented as a poster at the AIChe Annual Meeting, Philadelphia, 2008, Abstract 12708.
- 208. Kayrak-Talay D., Baird J., Taylor L. S. and Litster D. J. Crystallization of Pharmaceuticals Via Microfluidic Crystallization. Presented as a poster at the AIChe Annual Meeting, Philadelphia, 2008, Abstract 138687.
- 209. Guerrieri P., Zemylanov D, and Taylor L.S. Probing the State of Water on the Surface of Pharmaceutical Salts by X-ray Photoelectron Spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Diego, 2007 and published AAPS Pharm. Sci.2007 Vol. 9, No. S2, Abstract W4379.
- 210. Guerrieri P., and Taylor L.S. Investigation of Mechanisms of Moisture-Induced Decomposition of Ranitidine Hydrochloride in the Presence of Hydrophilic Excipients. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Diego, 2007 and published AAPS Pharm. Sci. 2007 Vol. 9, No. S2, Abstract W4380.
- 211. Guerrieri P., and Taylor L.S. The Significance of a Phase Change in Reaction Kinetics for a Hygroscopic Drug-Degradant System. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Diego, 2007 and published AAPS Pharm. Sci. 2007 Vol. 9, No. S2, Abstract W4381.
- 212. Rumondor A., Marsac P., and Taylor, L. S. Moisture-Induced Phase Separation in Drug Amorphous Solid Dispersion Systems. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Diego, 2007, and published AAPS Pharm. Sci. 2007 Vol. 9, No. S2, *Abstract W4370*.
- 213. Rumondor A., Marsac P., and Taylor, L. S. Understanding Moisture Sorption and Moisture-Induced Phase Separation in Amorphous Solid Dispersions using Flory-Huggins Solution Theory. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Diego, 2007, and published AAPS Pharm. Sci. 2007 Vol. 9, No. S2, *Abstract W4374*.
- 214. Romero-Torres, S., Wikström, H. and. Taylor, L. S Freeze Drying Monitoring Using Non-Invasive Raman Spectroscopy Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract T3291.*
- 215. Guerrieri P., and Taylor, L. S. Investigation of the Effect of Degradants on the Physical State of a Crystalline Salt in the Presence of Moisture. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract T2280.*
- 216. Guerrieri P., and Taylor, L. S. Effect of Degradants on Moisture-Induced Degradation of Pharmaceutical Salts. Presented as a poster at the American Association of

Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci*. 2006 Vol. 8, No. S2, Abstract T2279.

- 217. Guerrieri P., and Taylor, L. S.Effect of Degradants on Deliquescence of Pharmaceutical Salts. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract T2277.*
- 218. Marsac, P. J., Romary, D. Shamblin, S. L., and Taylor, L. S. Solubilization of crystalline drugs in the amorphous regions of polyethylene oxide. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract W4159.*
- 219. Marsac, P. J. and Taylor, L. S. Molecular level understanding of environmental stresses imposed on amorphous molecular level solid dispersions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract W4161.*
- 220. Marsac, P. J., Shamblin, S. L., and Taylor, L. S. Theoretical and Practical Approaches for Prediction of Drug-Polymer Miscibility and Solubility. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract W4157.*
- 221. Marsac, P. J. and Taylor, L. S. A Thermodynamic Model for Predicting Solubility of Drugs in High Glass Transition Polymers. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract T3094.*
- 222. Marsac, P. J., Konno, H., and Taylor, L. S. Physical performance of amorphous molecular level solid dispersions of nifedipine and felodipine with poly (vinylpyrrolidone) in the presence of water. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci*. 2006 Vol. 8, No. S2, Abstract W4241.
- 223. Gift, A. D., and. Taylor, L. S. Raman spectroscopy Moisture Sorption Balance: A Hybrid Instrument to Interrogate Water-solid Interactions in Pharmaceutical Systems. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract W4007.
- 224. Wikström, H., Gift, A. D., Rantanen J., and. Taylor, L. S.Understanding hydrate formation during wet granulation. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract W4297.*
- 225. Wikström, H. and. Taylor, L. S. Stabilization of meta-stable forms for the determination of the solubility ratio between a crystal hydrates and its anhydrous forms. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract R6031.*

- 226. Wikström, H., Gift, A. D., Luedeman, L. and. Taylor, L. S. Understanding the role of additives on hydrate formation in aqueous slurries. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract R6025*.
- 227. Wikström, H., Gift, A. D., Carroll, W. and. Taylor, L. S.Manipulation of hydrate formation during wet granulation using pharmaceutically relevant excipients. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract W4298.*
- 228. Wikström, H. and. Taylor, L. S. Determination of transition temperatures for various crystal hydrates using Raman spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, San Antonio, 2006 and published *AAPS Pharm. Sci. 2006 Vol. 8, No. S2, Abstract R6003.*
- 229. Ortiz J., Green R.J., Taylor, L. S., Ferruzzi M., Mauer L.J.. 2006. Effects of deliquescent ingredients and environmental moisture in catechin stability. Institute of Food Technologists' Annual Meeting and Food Expo. Orlando, FL.
- 230. Wikström, H., Rantanen J., Savolainen, M., and. Taylor, L. S. Evaluation of modeling approaches for solid-state determination of pharmaceutical solids using X-ray powder diffractometry. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published AAPS Pharm. Sci. 2005 Vol.6, S2, Abstract R6025
- 231. Towler, C. S. and Taylor, L. S. Investigation into prenucleation, molecular aggregation in polymorphic compounds. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract W5176*
- 232. Towler, C. S. and Taylor, L. S. Influence of Counterion on the Amorphous Properties of Organic Salts. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract W5175*
- 233. Marsac, P. J. and Taylor, L. S. Reduction of drug activity in the presence of a polymer as a tool for understanding the physical stability of amorphous molecular level dispersions . Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published AAPS Pharm. Sci.2005 Vol.6, S2, Abstract W5141
- 234. Marsac, P. J., Romary, D., Shamblin, S. L. and Taylor, L. S. Spontaneous loss of crystallinity of drugs in polymer matrices in the presence of water. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract W5140*
- 235. Salameh, A. K. and Taylor, L. S. Crystal Hydrate Formation in Multi-component Systems Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract W4241*

- 236. Salameh, A. K. and Taylor, L. S. Further Investigations of Deliquescence Lowering in Binary Mixtures: Implications of Lowering RH₀ in Binary Mixtures. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract W4242*
- 237. Hu, Y., Byrn, S.R and Taylor L. S. Effect of Particle Size on Polymorphic Quantitation Using Raman Spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract T3013*
- 238. Hu, Y., Byrn, S.R and Taylor L. S. Finding Polymorphic Transition Temperature through Real-time Monitoring of Crystallization with Raman Spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract T2202*
- 239. Gift, A. D. and Taylor, L.S. Effects of excipients on the transformation of hydration prone APIs during wet granulation. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract T2193*
- 240. Wikström, H., Carroll, W. J. Sage, D. Taylor, L.S. Controlling hydrate formation during wet granulation. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Nashville, 2005 and published *AAPS Pharm. Sci.2005 Vol.6, S2, Abstract T2251*
- 241. Salameh, A. K., Mauer, L. and Taylor, L.S. Implications of Deliquescence in Food and Pharmaceutical Products. Presented as a poster at AIChE Annual Meeting, Cincinnati. Poster number 434G
- Salameh, A. K., Mauer, L. and Taylor, L.S. Deliquescence Lowering in Mixtures of Sucrose and Citric Acid. Poster presentation at the 2005 IFT Annual Meeting, July 15-20, Abstract Number 29779.
- 243. Konno, H and Taylor, L. S. Analysis of the Competing Effects of Polymer and Humidity on Crystallization in Solid Dispersions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published *AAPS Pharm. Sci. 2004 Vol. 6, No. 4, Abstract R6146*
- 244. Hu, Y. Liang, J. K., Myerson, A. S., and Taylor, L. S. Crystallization Monitoring by Raman Spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published *AAPS Pharm. Sci.2004 Vol. 6, No. 4, Abstract R6120*
- 245. Marsac, P. J. and Taylor, L.S. Understanding the Role of Hydrogen Bonding in Stabilizing Amorphous Systems. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published *AAPS Pharm. Sci.2004 Vol. 6, No. 4, Abstract R6160.*

- 246. Salameh, A. K. and Taylor, L. S. Deliquescence in Binary Solid Mixtures. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published *AAPS Pharm. Sci.2004 Vol. 6, No. 4, Abstract R6124.*
- 247. Rantanen, J. Wikström, H. Marsac, P. and Taylor. L.S. Insight into the Phenomenon of Hydrate Formation During Wet Granulation Process. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published *AAPS Pharm. Sci. 2004 Vol. 6, No. 4, Abstract R6075*
- 248. Wikström, H., Romero, S. Grant, E.R. and Taylor, L.S. Content Uniformity Determination of Acetominophen Tablets Using Low Resolution Raman Spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published AAPS Pharm. Sci.2004 Vol. 6, No. 4, Abstract W5114
- 249. Rantanen, J. Wikström, H. Turner, R. and Taylor. L.S. End-Point Detection of High Shear Granulation With Near Infrared (nir) Spectroscopy. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published *AAPS Pharm. Sci. 2004 Vol. 6, No. 4, Abstract W5092*
- 250. Rantanen, J. Wikström, H. Kemper, M., Rhea, E. and Taylor. L.S. A Comparison of Hydrate in Binary Powder Mixtures – A Comparison of Different Spectroscopic Techniques. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published *AAPS Pharm. Sci.2004 Vol. 6, No. 4, Abstract T3033*
- 251. Wikström, H., Lewis, I. R. and Taylor, L.S. Comparison Between Sampling Techniques for Raman Spectroscopic Monitoring of Process Induced Transformations. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, 2004 and published AAPS Pharm. Sci.2004 Vol. 6, No. 4, Abstract M1270
- 252. Wikström, H, Rantanen, J. R., Rhea. E., Kemper, M. and Taylor, L.S. Challenges Involved in Obtaining Raman Calibration Data for Solid-State Pharmaceutical Systems. Presented as a poster at Pittsburg Conference (Pittcon) Annual Meeting, Chicago, Illlinois. Poster 7400-7100
- 253. Wikström, H. Marsac, P. J. and Taylor, L. S. Monitoring Hydrate Formation During Wet Granulation Using In-line Raman Spectroscopy Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Salt Lake City, 2003 and published *AAPS Pharm. Sci.2003 Vol. 5, No. 4, Abstract T2306*
- 254. Tang, X. Pikal, M. J. and Taylor L.S. Solid State Characterisation of a Group of Dihydropyridine Calcium Channel Antagonists – A Spectroscopic Investigation of Hydrogen Bond Patterns in Crystalline and Amorphous Phases. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Colorado, 2001 and published AAPS Pharm Sci 2001 Vol. 3, No. 3
- 255. Tang, X. Pikal, M. J. and Taylor L.S. Solid State Characterisation of a Group of Dihydropyridine Calcium Channel Antagonists – The Effect of Temperature on

Hydrogen Bonding in Crystalline and Amorphous Phases. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Colorado, 2001 and published *AAPS PharmSci 2001 Vol. 3, No. 3*

- 256. Tang, X. Pikal, M. J. and Taylor L.S. Solid State Characterisation of a Group of Dihydropyridine Calcium Channel Antagonists – Investigation of the dependence of hydrogen bonding on annealing process of the glasses. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Colorado, 2001 and published AAPS PharmSci 2001 Vol. 3, No. 3
- 257. Tang, X. Pikal, M. J. and Taylor L.S. Solid State Characterisation of a Group of Dihydropyridine Calcium Channel Antagonists – A Spectroscopic Investigation of Hydrogen Bond Patterns in Crystalline and Amorphous Phases. Presented as an oral communication at "The amorphous state, a critical review" conference organised by Bioupdate Foundation, Cambridge, May 2001 and abstract published in the conference proceedings.
- 258. Taylor L.S., Langkilde F.W and Zografi, G. FT-Raman Spectroscopic Study of the Interaction of Water Vapour with Amorphous Polymers. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Indianapolis, 2000 and published *AAPS Pharm. Sci. 2000 Vol. 2, No. 2, Abstract 1997*
- 259. Taylor, L. S. FT-Raman Spectroscopic Analysis of the Interaction of Water Vapour With Pharmaceutical Polymers. Presented as an oral communication at the Analysdagerna international conference, Uppsala, June 1999 and abstract published in the conference proceedings.
- 260. Taylor, L. S. and Zografi, G. Spectroscopic studies of indomethacin-PVP solid dispersions. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Boston, USA, 1997 and published *Pharm. Res. 14 (11 suppl) S-186.*
- 261. Taylor, L.S., York, P. and Mehta, V. Particle Size Effects on the Phase Behaviour of Trehalose Dihydrate on Heating. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Seattle, USA, 1996 and published *Pharm. Res. 1996, 13 (9:suppl) S344.*
- 262. Taylor, L.S., York, P., Williams, A.C. and Mehta, V. FT-Raman Spectroscopic Studies on the Dehydration of Trehalose Dihydrate. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Seattle, USA, 1996 and published *Pharm. Res. 1996, 13 (9:suppl) S344.*
- 263. Taylor, L.S., York, P. and Sokoloski, T.D. Protein Stabilisation by Carbohydrates. Presented as a poster at the American Association of Pharmaceutical Scientists Annual Meeting, Miami, USA, 1995 and published *Pharm. Res. 1995, 12 (9:suppl) S140.*
- 264. Taylor, L.S., York, P. and Mehta, V. Phase Characterisation of Trehalose Dihydrate. Presented as a poster to the American Association of Pharmaceutical Scientists Annual Meeting, San Diego, USA, 1994 and published: *Pharm. Res. 1994; 11:* (10:suppl) S151.

- 265. Taylor, L.S., York, P. Williams, A.C., Edwards, H.G.M., Mehta, V., Badcoe, I.G. and Clarke, A.R. Protein Stabilisation by Sugars. Presented as a poster to the British Pharmaceutical Conference, London, UK, 1994 and published: *J. Pharm. Pharmacol.* 1994; 46 (suppl 2) 1076.
- 266. Taylor, L.S., York, P. and Mehta, V. Spectroscopic Characterisation of Nonequilibrated Glucose Solutions After Freezing. Presented as an oral communication to the British Pharmaceutical Conference, Reading, UK, 1993 and published: *J. Pharm. Pharmacol.* 1993; 45 (suppl 2) 1100.