

Curriculum Vitae

Dr. James K. Harper
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Brigham Young University
Department of Chemistry
Benson Building, C363
Provo, UT 84602

Education

Postdoctoral work, Montana State University (with Gary Strobel)
Ph.D., Physical-Analytical Chemistry, University of Utah (with David Grant)
B. S., Chemistry, Brigham Young University

Employment

Associate Professor, Brigham Young University, Dept. of Chemistry & Biochemistry, (2019–present)
Associate Professor with tenure, University of Central Florida, Dept. of Chemistry (2017–2019)
Assistant Professor, University of Central Florida, Dept. of Chemistry (2011–2017)
Research Scientist, University of Utah, Department of Chemistry, D.M. Grant NMR Center (2002–2011)
Postdoctoral work, Montana State University Dept. of Plant Pathology (2000–2002)

Professional Memberships

Sigma-Xi (2021–present)
America Chemical Society (2021–present)

Awards and Honors

Outstanding Educator at a Ph.D. granting institution. American Chemical Society, Utah Section.
National Science Foundation. CAREER award 2015–2021.
Review editor, Frontiers in Chemistry (analytical chemistry)
Guest editor, Magnetic Resonance in Chemistry, Special issue on “anisotropy in the NMR of solids”, 2023.
Member of the International Union of Crystallography’s (IUCr) Commission on NMR Crystallography.

H-index: 31

Publications (76 journal articles, 4 book chapters and 5 patents in reverse chronological order). All articles listed were published in peer-reviewed journals or books. Those articles where I am the primary author are shown with my name underlined. Asterisk’s indicate the corresponding author and **orange** denotes students (non-BYU). **Red** denotes BYU students. Impact factor is shown in **green**.

Refereed journal articles

Manuscripts from work performed at BYU

76. Heider, E. C.; Harper, J. K. *J. Chem. Educ.*, accepted.
75. **Toomey, R.**; Powell, J.; **Cheever, J.**; Harper, J. K.* “Distinguishing between COOH, COO⁻ and H disordered COOH sites in solids with ¹³C chemical shift anisotropy and T₁ measurements” *Magn. Reson. Chem.* accepted. **Impact factor:** 2.447.
74. **Bryant, J. T.**; Logan, M. W.; Chen, Z.; Djokic, M.; Cairnie, D. R.; Vazquez-Molina, D. A.; Nijamudheen, A.; Langlois, K. R.; Markley, M. J.; Pombar, G.; Holland, A.; Caranto, J. D.; Harper, J. K.; Morris, A. J.; Mendoza-Cortes, J. L.; Jurca, T.; Chapman, K. W.; Uribe-Romo, F. J. “Synergistic steric and electronic effects on the photoredox catalysis by a multivariate library of titania metal-organic frameworks” *J. Am. Chem. Soc.* **2023**, 145, 4589. **Impact factor:** 16.383. DOI: 10.1021/jacs.2c12147.
73. Hartman, J. D.*; **Spock, L. E.**; Harper, J. K. “Benchmark accuracy of predicted NMR observables for quadrupolar ¹⁴N and ¹⁷O nuclei in molecular crystals” *Magn. Reson. Chem.* **2023**, 61, 253. **Impact factor:** 2.447. DOI:10.1002/mrc.5328
72. Hartman, J. D.*; Harper, J. K.* “Improving the accuracy of GIPAW chemical shift calculations with cluster and fragment corrections” *Solid State Nucl. Magn. Reson.* **2022**, 122, Article 101832. **Impact factor:** 2.812. DOI:10.1016/j.ssnmr.2022.101832.
71. **Peterson, J. W.**; Yuan, Y.; Harper, J. K.* “A rapid, quantitative NMR test for oxygen-17 enrichment in water” *Anal. Chem.* **2022**, 94, 5741. **Impact factor:** 8.008. DOI:10.1021/acs.analchem.2c00081.
70. Burt, S. R.; Harper, J. K.; Cool, L. G.* “A new depsidone from the neotricone-rich chemotype of the lichenized fungus *Usnea fulvoreagens*” *Nat. Prod. Res.* **2022**, **Impact factor:** 2.488. DOI: 10.1080/14786419.2022.2038594.
69. **Kellner, A.**; **Cherubin, P.**; Harper, J. K.; Teter, K.* “Proline isomerization as a key determinant for Hsp90-toxin interactions” *Front. Cell. Infect. Microbiol.* **2021**, 11, Article 771653. **Impact factor:** 6.073. DOI: 10.3389/fcimb.2021.771653.
68. **Wang, L.**; Harper, J. K.* “Refining crystal structures using ¹³C NMR chemical shift tensors as a target function” *CrystEngComm*, **2021**, 23, 7061–7071. (Featured on journal cover). **Impact factor:** 3.545. DOI: 10.1039/d1ce00960e.
67. Hartman, J. D.*; **Mathews, A.**; Harper, J. K. “Fast and accurate electric field gradient calculations in molecular solids with density functional theory” *Front. Chem.* **2021**, 9, 751711. **Impact factor:** 5.545. DOI: 10.3389/fchem.2021.751711.
66. **Wang, L.**; **Elliott, A. B.**; Moore, S. D.; Beran, G. J. O.; Hartman, J.; Harper, J. K.* “Modeling small structural and environmental differences in solids with ¹⁵N NMR chemical shift tensors” *ChemPhysChem* **2021**, 22, 1008–1017. **Impact factor:** 3.520. DOI: 10.1002/cphc.202000985.
65. Chagoya, K.; Nash, D.; Jiang, T.; Le, D.; Alayoglu, S.; Idrees, K.; Zhang, X.; Farha, O.; Harper, J.; Rahman, T.; Blair, R.* “Mechanically enhanced catalytic reduction of carbon dioxide over defect laden hexagonal boron nitride” *ACS Sustainable Chem. Eng.* **2021**, 9, 2447–2455. **Impact factor:** 9.224. DOI: 10.1021/acssuschemeng.0c06172
64. **Sestile, S.**; Richardson, D.; **Toomey, R.**; Cool, L. G.; Harper, J. K.* “NMR structural characterization from one-bond ¹³C–¹³C couplings: Complete assignment of a hydrogen-

- poor deprotonation" *Magn. Reson. Chem.* **2021**, 59, 23–33. (Featured on journal cover). **Impact factor**: 2.447. DOI: 10.1002/mrc.5077.
63. **Recchia, M. J. J.**; Cohen R. D.; Liu, Y.; Sherer, E. C.; Harper, J. K.; Martin, G. E.*; Williamson, R. T.* "One-shot measurement of residual chemical shift anisotropy using poly- γ -benzyl-L-glutamate as an alignment medium" *Org. Lett.* **2020**, 22, 8850–8854. **Impact factor**: 6.072. DOI: 10.1021/acs.orglett.0c03225.
 62. Holmes, S. T.; **Engl, O. G.**; Srnec, M. N.; Madura, J. D.; Quinones, R.; Harper, J. K.; Schurko, R. W.*; Iuliucci, R. J.* "Chemical shift tensors of cimetidine form A modeled with density functional theory calculations: Implications for NMR crystallography" *J. Phys. Chem. A* **2020**, 124, 3109–3119. **Impact factor**: 2.944. DOI: 10.1021/acs.jpca.0c00421.
 61. **Alheety, S.**; Valenti, D.; **Mujumdar, N.**; **Ellis, N.**; Campiglia, A. D. Harper, J. K.; Heider, E. C.* "Characterization of a bio-sourced, fluorescent, ratiometric pH indicator with alkaline pK_a" *Photochem. Photobiol.* **2020**, 96, 1176–1181. **Impact factor**: 3.521. DOI: 10.1111/php.13299.
 60. **Elliott, A. B.**; **Versfeld, G.**; Halling, M. D.; Miller, J. S.*; **Harper, J. K.*** "Solid-state ¹³C NMR evidence for long multicenter intradimer bonding in zwitterion-like structures" *Chem. Eur. J.* **2020**, 26, 230–236. **Impact factor**: 5.020. DOI: 10.1002/chem.201903099. Designated as a "hot paper".
 59. **Gale, C. C.**; Borrego, E.; Blackmon, H.; Harper, J. K.; Richardson, D.; Song, H.* "Investigating a photolytic metabolite in the nocturnal grasshopper *Schistocerca gregaria* (Orthoptera: Acrididae)" *Ann. Entomol. Soc. Am.* **2019**, 112, 22, 1008–1017. **Impact factor**: 2.12. DOI: 10.1093/aesa/say048.
 58. **Newsome, W. J.**; Ayad, S.; Cordova, J.; Reinheimer, E. W.; Campiglia, A. D.; Harper, J. K.; Hanson, K.*; Uribe-Romo, F. J.* "Solid state multicolor emission in substitutional solid solutions of metal organic frameworks" *J. Am. Chem. Soc.* **2019**, 141, 11298–11303. **Impact factor**: 16.383. DOI: 10.1021/jacs.9b05191.

Manuscripts from work performed before employment at BYU

57. **Harper, J. K.***; **Pope, G. M.** "Recent developments in the use of one bond C-C couplings in structure determination" *Annu. Rep. NMR Spectrosc.* **2019**, 98, 193–238.
56. Liyanage, P. Y.; Graham, R. M.; Pandey, R. R.; Chusuei, C. C.; Mintz, K. J.; Zhou, Y.; Harper, J. K.; Wu, W.; Wikramanayake, A. H.; Vanni, S.; Leblanc, R. M.* "Carbon nitride dots: a selective bioimaging nanomaterial" *Bioconjugate Chem.* **2019**, 30, 111–123.
55. Young, R. P.; Lewis, C. R.; Yang, C.; **Wang, L.**; Harper, J. K.; Mueller, L. J.* "TensorView: A software tool for displaying NMR tensors" *Magn. Reson. Chem.* **2019**, 57, 211–223.
54. **Vazquez-Molina, D. A.**; **Pope, G. M.**; Ezazi, A. A.; Mendoza-Cortes, J. L.; Harper, J. K.; Uribe-Romo, F. J.* "Framework vs. side-chain amphidynamic behavior in oligo-(ethylene oxide) functionalised covalent-organic frameworks" *Chem. Comm.* **2018**, 54, 6947–6950.
53. **Maxwell, T.**; Blair, R. G.; **Wang, Y.**; **Kettring, A. H.**; Moore, S. D.; Rex, M.; **Harper, J. K.*** "A solvent free approach for converting cellulose into volatile organic compounds with endophytic fungi" *J. Fungi* **2018**, 4, 10.

52. **Wang, Y.**; **Harper, J. K.*** “Restoring waning production of volatile organic compounds in the endophytic fungus *Hypoxylon* sp. (BS15)” *J. Fungi* **2018**, 4, 69.
51. **Mohammad-Pour, G.**; **Ly, R.**; **Fairchild, D.**; Burnstine-Townley, A.; **Vazquez-Molina, D.**; **Trieu, K.**; Campiglia, A.; Harper J.*; Uribe-Romo F.* “Modular design of highly fluorescent dibenzo- and naphtha- fluoranthenes: structural rearrangements and electronic properties” *J. Org. Chem.* **2018**, 83, 8036–8053.
50. **Pope, G. M.**; Hung, I.; Gan, Z.; Mobarak, H.; Widmalm, G.; **Harper, J. K.*** “Exploiting $^{13}\text{C}/^{14}\text{N}$ solid-state NMR distance measurements to assign dihedral angles and locate neighboring molecules” *Chem. Comm.* **2018**, 54, 6376–6379.
49. **Wang, L.**; Uribe-Romo, F. J.; Mueller L. J.; **Harper, J. K.*** “Predicting anisotropic thermal displacements for hydrogens from solid-state NMR: a study on hydrogen bonding in polymorphs of palmitic acid” *Phys. Chem. Chem. Phys.* **2018**, 20, 8475–8487. **(Cover)**
48. Heider, E. C.*; **Valenti, D.**; Long, R. L.; **Garbou, A.**; Rex, M.; Harper J. K. “Quantifying sucralose in a water-treatment wetlands: service-learning in the analytical laboratory” *J. Chem. Ed.* **2018**, 95, 535–542. **(Cover)**
47. Soss, S. E.; Flynn, P. F.; Iuliucci, R. J.; Young, R. P.; Mueller, L. J.; Hartman, J.; Beran, G. J O.; **Harper, J. K.*** “Measuring and modeling highly accurate ^{15}N chemical shift tensors in a peptide” *ChemPhysChem* **2017**, 18, 2225–2232.
46. **Powell, J.**; **Valenti, D.**; **Bobnar, H.**; **Drain, E.**; **Elliot, B.**; **Frank, S.**; **McCullough, T.**; Moore, S.; **Kettring, A.**; Iuliucci, R.; **Harper, J. K.*** “Evaluating the accuracy of theoretical one-bond ^{13}C – ^{13}C scalar couplings and their ability to predict structure in a natural product” *Magn. Reson. Chem.* **2017**, 55, 979–989.
45. Harper, J. K.; Heider, E. C.* “Data linearization activity for undergraduate analytical chemistry lectures” *J. Chem. Ed.* **2017**, 94, 610–614.
44. **Vazquez-Molina, D. A.**; **Mohammad-Pour, G. A.**; Lee, C.; **Logan, M. W.**; Duan, X.; Harper, J. K.; Uribe-Romo, F. J.* “Mechanically shaped 2-dimensional covalent organic frameworks reveal crystallographic alignment and fast Li-ion conductivity” *J. Am. Chem. Soc.* **2016**, 138, 9767–9770.
43. **Powell, J.**; Heider, E. C.; Campiglia, A.; **Harper, J. K.*** “Predicting accurate fluorescent spectra for high molecular weight polycyclic aromatic hydrocarbons using density functional theory” *J. Mol. Spectrosc.* **2016**, 328, 37–45.
42. **Nash, D. J.**; Restrepo, D. T.; Parra, N. S.; Giesler, K. E.; Penabad, R. A.; Aminpour, M.; Le, D.; Li, Z.; Farha, O.; Harper, J. K.; Rahman, T. S.; Blair, R. G.* “Heterogeneous metal-free hydrogenation over defect-laden hexagonal boron nitride” *ACS Omega*, **2016**, 1, 1343.
41. **Powell, J.**; **Kalakewick, K.**; Uribe-Romo, F.; **Harper, J. K.*** “Solid-state NMR and DFT predictions of differences in COOH hydrogen bonding in odd and even numbered n-alkyl fatty acids” *Phys. Chem. Chem. Phys.* **2016**, 18, 12541.
40. **Kalakewich, K.**; Iuliucci, R.; Mueller, K. T.; **Eloranta, H.**; **Harper, J. K.*** “Monitoring the refinement of crystal structures with ^{15}N solid-state NMR shift tensor data” *J. Chem. Phys.* **2015**, 143, 194702.
39. Nigg, J.; Strobel, G.*; Knighton, W. B.; Hilmer, J.; Geary, B.; Riyaz-Ul-Hassan, S.; Harper, J. K.; **Valenti, D.**; **Wang, Y.** “Functionalized *para*-substituted benzenes as 1,8-cineole production modulators in an endophytic *Nodulisporium* species” *Microbiol.* **2014**, 160, 1772.

38. **Kalakewich, K.**; Iuliucci, R.; Harper, J. K.* “Establishing accurate high-resolution crystal structures in the absence of diffraction data and single crystals – an NMR approach” *Cryst. Growth Des.* **2013**, *13*, 5391.
37. Harper, J. K.*; **Tishler, D.**; Richardson, D.; Lokvam, J.; Pendrill, R.; Widmalm, G. “Solid-State NMR Characterization of the Molecular Conformation in Disordered Methyl α -L-Rhamnofuranoside” *J. Phys. Chem. A* **2013**, *117*, 5534.
36. **Valenti, D. J.**; Arif, A. M.; Strobel, G. A.; Harper, J. K.* “(6S*)-[(1S*,2R*)-1,2-Dihydroxypentyl]-4-methoxy-5,6-dihydropyran-2-one” *Acta Crystallogr.* **2013**, *E69*, o1657.
35. Harper, J. K.*; Iuliucci, R. J.; Grueber, M.; **Kalakewich, K.** “Refining crystal structures with experimental ^{13}C NMR shift tensors and lattice-including electronic structure methods” *CrystEngComm*, **2013**, *15*, 8693.
34. Harper, J. K.*; Strobel, G. A.; Arif, A. “3-Carbamoylquinoxalin-1-ium chloride” *Acta Crystallogr.*, **2012**, *E68*, o79.
33. Harper, J. K.; Doebller, J. A.; **Jacques, E.**; Grant, D. M.*; Von Dreele, R. “A combined solid-state NMR and synchrotron x-ray diffraction powder study on the structure of the antioxidant (+)-catechin 4.5 hydrate” *J. Am. Chem. Soc.* **2010**, *132*, 2928 (**Cover**).
32. Jiang, Y. J.*; Harper, J. K. “An explanation of magic angle spinning NMR experiments in the time domain” *Concepts in Magn. Reson. A*, **2009**, *34A*, 249.
31. Iuliucci, R.*; **Hoop, C. L.**; Arif, A. M.; Harper, J. K.; Pugmire, R. J.; Grant, D. M. “Redetermination of 1,4-dimethoxybenzene” *Acta Crystallogr.*, **2009**, *E65*, o251.
30. Kharwar, R. N.; Verma, V. C.; Kumar, A.; Gond, S. K.; Harper, J. K.; Hess, W. M.; Lobkovosky, E.; Ma, C.; Ren, Y.; Strobel, G. A.* “Javinicin, an antibacterial naphthaquinone from an endophytic fungus of Neem, *Chloridium* sp.” *Curr. Microbiol.* **2008**, *58*, 233.
29. Hoffman, A. M.*; Mayer, S. G.; Strobel, G. A.; Hess, W. M.; Sovocool, G. W.; Grange, A. H.; Harper, J. K.; Arif, A. M.; Grant, D. M. “Purification, identification and activity of phomodione, a furandione from an endophytic *Phoma* species” *Phytochem.* **2008**, *69*, 1049.
28. **Heider, E. M.**; Harper, J. K.; Grant, D. M.* “Structural characterization of an anhydrous polymorph of paclitaxel by solid-state NMR” *Phys. Chem. Chem. Phys.* **2007**, *9*, 1 (**Cover**).
27. Harper, J. K.; Strohmeier, M.; Grant, D. M.* “Pursuing structure in microcrystalline solids with independent molecules in the unit cell using ^1H - ^{13}C correlation data” *J. Magn. Reson.* **2007**, *189*, 20.
26. Ma, Z.; Halling, M. D.; Solum, M. S.; Harper, J. K.; Orendt, A. M.; Facelli, J. C.; Pugmire, R. J.; Grant, D. M.*; Amick, A. W.; Scott, L. T. “Ring current effects in crystals. Evidence from ^{13}C chemical shift tensors for intermolecular shielding in 4,7-di-*t*-butylacenaphthene versus 4,7-di-*t*-butylnaphthylene” *J. Phys. Chem. A*, **2007**, *111*, 2020.
25. Harper, J. K.; Grant, D. M.* “Enhancing crystal structure prediction with NMR tensor data” *Crystal Growth & Design*, **2006**, *6*, 2315.
24. Harper, J. K.; Grant, D. M.*; Zhang, Y.; Lee, P. L.; Von Dreele, R. B.* “Characterizing challenging microcrystalline solids with solid-state NMR shift tensor and synchrotron x-ray powder diffraction data: structural analysis of ambuic acid” *J. Am. Chem. Soc.* **2006**, *128*, 1547.

23. **Heider, E. M.**; Harper, J. K.; Grant, D. M.*; Hoffman, A.; Dugan, F.; Tomer, D. P.; O'Neill, K. L. "Exploring unusual antioxidant activity in a benzoic acid derivative: a proposed mechanism for citrinin" *Tetrahedron*, **2006**, 62, 1199.
22. Harper, J. K.; Barich, D. H.; **Heider, E. M.**; Grant, D. M.*; Franke, R. R.; Johnson, J. H.; Zhang, Y.; Lee, P. L.; Von Dreele, R. B.*; Scott, B.; Williams, D.; Ansell, G. B. "A combined solid-state NMR and x-ray powder diffraction study of a stable polymorph of paclitaxel" *Crystal Growth & Design*, **2005**, 5, 1737.
21. Strobel, G. A.*; **Daisy, B.**; Castillo, U. C.; Harper, J. K. "Natural products from endophytic microorganisms" *J. Nat. Prod.* **2004**, 67, 257.
20. Harper, J. K.; Barich, D. H.; Hu, J. Z.; Strobel, G. A.; Grant, D. M.* "Stereochemical analysis by solid-state NMR: structural predictions in ambuic acid" *J. Org. Chem.* **2003**, 68, 4609 (Cover).
19. Castillo, U.; Harper, J. K.; Strobel, G. A.*; Sears, J.; Alesi, K.; Ford, E.; Sugawara, F.; Lin, J.; Hunter, M.; Yaver, D.; Jensen, J. B.; Porter, H.; Robison, R.; Hess, W. M.; Condrón, M.; Teplow, D. "Kakadumycins, novel antibiotics from *Streptomyces* sp. NRRL 30566, an endophyte from *grevillea pteridifolia*" *FEMS Micro. Lett.* **2003**, 224, 183.
18. **Carter, D.**; Harper, K. T.*; Shiffler, A. K.; Jolley, V. D.; Harper, J. K. "Relationship between soil extractable boron and tissue concentrations in rosaceae shrubs in Utah" *J. Plant Nutr.* **2003**, 26, 297.
17. Harper, J. K.; Ford, E. J.; Strobel, G. A.; Porco, J. A. Jr.; Tomer, D. P.; O'Neill, K. L.; Heider, E. M.; Grant, D. M.* "Pestacin: a 1,3-dihydro isobenzofuran from *Pestalotiopsis* microspora possessing antioxidant and antimicrobial activities" *Tetrahedron*, **2003**, 59, 2471.
16. Harper, J. K.; Facelli, J. C.; Barich, D. H.; McGeorge, G.; **Mulgrew, A. E.**; Grant, D. M.* "¹³C NMR investigation of solid-state polymorphism in 10-deacetyl baccatin III" *J. Am. Chem. Soc.* **2002**, 124, 10589.
15. Strobel, G. A.*; Ford, E.; **Worapong, J.**; Harper, J. K.; Arif, A. M.; Grant, D. M.; Fung, P. C. W.; Ming, W. C. R. "Isopestacin, an isobenzofuranone from *Pestalotiopsis* microspora possessing antifungal and antioxidant activity" *Phytochem.* **2002**, 60, 179.
14. Harper, J. K.; **Mulgrew, A. E.**; Li, J. Y.; Barich, D. H.; Strobel, G. A.; Grant, D. M.* "Characterization of stereochemistry and molecular conformation using solid-state NMR tensors" *J. Am. Chem. Soc.* **2001**, 123, 9837.
13. Harper, J. K.; Dalley, N. K.; **Mulgrew, A. E.**; West F. G.; Grant, D. M.* "10-decetyl baccatin III dimethyl sulfoxide disolvate" *Acta Crystallogr.* **2001** C57, 64.
12. Y. Li, J. Y.; Harper, J. K.; Grant, D. M.; Tombe, B. O.; Bashyal, B.; Hess, W. M.; Strobel, G.* "Ambuic acid, a highly functionalized cyclohexenone with antifungal activity from *Pestalotiopsis* spp. and *Monochaetia* sp." *Phytochem.* **2001**, 56, 463.
11. Harper, J. K.; Arif, A. M.; Li, J. Y.; Strobel, G.; Grant, D. M.* "Terrein" *Acta Crystallogr. C* . **2000**, C56, e570.
10. Hu, J. Z.; Harper, J. K.; Taylor, C.; Pugmire, R. J.; Grant, D. M.* "Modified spectral editing methods for ¹³C CP/MAS experiments in solids" *J. Magn. Reson.* **2000**, 142, 326.
9. Harper, J. K.; Arif A. M.; Grant D. M.* "cis-verbenol" *Acta Crystallogr. C* **2000**, 56, 451.

8. Li, J. Y.; Strobel, G.*; Harper, J. K.; Lobkovsky E.; Clardy J. "Cryptocin, a potent tetramic acid antimycotic from the endophytic fungus *Cytosporiopsis* cf. *quercina*" *Org. Lett.* **2000**, 2, 767.
7. Harper, J. K.; Grant, D. M.* "Solid-state ^{13}C chemical shift tensors in terpenes. 3. Structural characterization of polymorphous verbenol" *J. Am. Chem. Soc.* **2000**, 122, 3708.
6. Strobel, G.*; Li, J. Y.; Sugawara, F.; Koshino, H.; Harper, J. K.; Hess, W. M. "Oocydin A, a chlorinated macrocyclic lactone with potent anti-oomycete activity from *Serratia marcescens*" *Microbiol.* **1999**, 145, 3557.
5. Harper, J. K.; McGeorge, G.; Grant, D. M.* "Solid-state ^{13}C chemical shift tensors in terpenes. 2. NMR characterization of distinct molecules in the asymmetric unit and steric influences on shift in parthenolide" *J. Am. Chem. Soc.* **1999**, 121, 6488.
4. Harper, J. K.; McGeorge G.; Grant, D. M.* "Solid-state ^{13}C chemical shift tensors in terpenes. Part I. Spectroscopic methods and chemical shift structure correlations in caryophyllene oxide" *Magn. Reson. Chem.* **1998**, 36, S135.
3. Harper, J. K.; Dunkel, R.; Grant, D. M.*; Owen, N. L.; Li, D.; Wood S. G.; Cates, R. G. "NMR characterization of obscurinervine and obscurinervidine using novel computerized analysis techniques" *J. Chem. Soc., Perkin Trans. 2* **1996**, 91.
2. Harper, J. K.; Dalley, N. K.; Owen, N. L.*; Li, D.; Wood, S. G.; Cates, R. G. "X-ray structure and ^{13}C NMR assignments of indole alkaloids from *Aspidosperma cruenta*" *J. Crystallogr. Spectrosc. Res.* **1993**, 23, 1005.
1. Elmquist, T.*; Cates, R. G.; Harper J. K.; Gardfjell, H. "Flowering in males and females of a Utah willow, *Salix rigida*, and effects on growth, tannins, phenolic glycosides and sugars" *Oikos* **1991**, 61, 65.

Refereed book chapters

4. Harper, J. K.*; **Cheever, J.** Difficult Systems in *Modern NMR crystallography: Concepts an applications*, 2024 Accepted.
3. Harper, J. K.*; Iuliucci, R. **2014** "C-13 chemical shift tensors in organic materials" In *Encyclopedia of Analytical Chemistry*, Meyers, R. A., Ed.; Wiley: New York, pp. 1–37.
2. Harper, J. K.* "Chemical shift anisotropy and asymmetry: Relationships to crystal structure" In *NMR Crystallography*, Harris, R. K., Wasylshen, R. E., Duer, M. J., Eds.; Wiley: Chichester, 2009, 119.
1. Harper, J. K.* "Natural products structural analysis enhancements" In *Encyclopedia of NMR*; Grant, D. M., Harris, R. K., Eds.; Wiley: Chichester, 2002 Vol. 9, pp 589 – 597.

Patents

1. Strobel, G. A.; Castillo, U. F.; Harper, J. K.; Yaver, D. S. *Microbicidal and anticancer endophytic streptomycetes from higher plants*. International Patent WO 2003085122 A2 20031016, **2003**.
2. Ford, E.; Harper, J. K.; Strobel, G. A. *Pestalotiopsis microspora isolates and compounds derived therefrom*. U.S. Patent 2,004,009,537 A1 20040115, **2004**.
3. Harper, J. K.; Grant, G. M. *Two novel trihydrates of paclitaxel*. U.S. patent 8,633,240, **2014**.

4. Uribe-Romo, F. J., Vazquez-Molina, D. A., Harper, J. K. *Mechanically Shaped 2-dimensional covalent organic frameworks*. Patent Appl. 62/631, 139. Submitted July 12, **2016**.
5. Harper, J. K. *Rational design of heterocyclic antioxidants that are highly reactive by hydrogen atom transfer (HAT) but inert to single electron transfer (SET)*. Patent appl. Submitted Sept. 2019.

Presentations (reverse chronological order). Asterisk's indicate the presenting author and **Red** denotes students from UCF or BYU.

International conferences

- Harper, J. K.* “Pursuing accurate crystallography without diffraction” Invited oral presentation. American Crystallographic Association annual meeting, July 7 – 11, 2023. Baltimore MD.
- **Nickles, P. G.;** Burt, S.; Harper, J. K.* “Eliminating ambiguity in small molecule structural characterizations with J-couplings and computational methods” Refereed poster presentation, Experimental NMR conference, April 16–20, 2023.
- Harper, J. K.* “*Refining crystal structures using NMR constraints*” Invited oral presentation, SMASH – small molecule NMR conference, August 28–31, 2022.
- **Nickles, P. G.*; Toomey, R.;** Heider, E. C.; Harper, J. K. “*Rational design of heterocyclic antioxidants that are highly reactive to hydrogen atom transfer (HAT but inert to single electron transfer (SET))*” Refereed virtual poster presentation, American Chemical Society Meeting and Exposition, August 21–25, 2022.
- **Peterson, J.*;** Harper, J. K. “*Determination of the crystal structure of docetaxel using solid-state NMR spectroscopy*” Refereed poster presentation, American Chemical Society Meeting and Exposition, March 20 – 24, 2022.
- Hartman, J. D.*; Harper, J. K. “*Improving the accuracy of GIPAW chemical shielding calculations in molecular crystals with fragment-based corrections*” Refereed poster presentation, 61st Rocky Mountain Conference on Magnetic Resonance, July 25–29, 2022.
- **Wang, L.;** Toomey, R.; Harper, J. K.* “*A software tool for refining crystal structures using ¹³C NMR chemical shift tensors as a target function*” Refereed poster presentation, 61st Rocky Mountain Conference on Magnetic Resonance, July 25–29, 2022.
- **Wang, L.;** Harper, J. K.* “*Do NMR crystallography structural refinements matter?*” Refereed poster presentation, 61st Rocky Mountain Conference on Magnetic Resonance, July 25–29, 2022.

COVID ENFORCED BREAK

- Harper, J. K.* Invited Oral presentation, International Varian-Agilent NMR users meeting, April 6, 2019 “*Recent developments in using C–C bond couplings from structure determinations*”.
- Harper, J. K.* Invited Oral presentation, Experimental NMR Conference, April 9, 2019 “*Predicting and refining crystal structures with NMR data*”.

- **Sestile, S.***; Harper, J. K. “*Predicting structure in a natural product from one-bond $^{13}\text{C}/^{13}\text{C}$ scalar couplings*” Refereed poster presentation, Experimental NMR conference, April 2018, Orlando, FL.
- Harper, J. K.* “*Predicting anisotropic thermal displacements from solid-state NMR*” Refereed poster presentation, Experimental NMR conference, April 2018, Orlando, FL.
- Harper, J. K.* Invited oral presentation, American Crystallographic Association annual meeting, May 2017 “*Developing accurate crystallography without diffraction*”, New Orleans LA.
- Harper, J. K.* Invited oral presentation, 24th Congress and General Assembly of the International Union of Crystallography (IUCr), Aug. 2017 “*Predicting and refining crystal structures with NMR data*”, Hyderabad, India.
- Harper, J. K.* Invited oral presentation, Eastern Analytical Symposium, Nov. 2017 “*Developing accurate crystallography without diffraction*”, Princeton NJ.
- **Sestile, S.***; Harper, J. K. “*Predicting structure in a natural product from one-bond $^{13}\text{C}/^{13}\text{C}$ scalar couplings*” Refereed poster presentation, Experimental NMR conference, April 2018, Orlando, FL.
- Soss S. E.*; Harper, J. K.; Flynn, P. F. “*Spinning slowly for Highly Accurate Chemical Shift Tensors*” Refereed Poster Presentations, Rocky Mountain conference on Magnetic resonance, July 17–22, 2016, Breckenridge, CO.
- Harper, J. K.*; **Powell, J.** “*Distinguishing between COOH, COO⁻, and H disordered COOH moieties with ^{13}C shift tensors and T_1 data*” Refereed Poster Presentations, Rocky Mountain conference on Magnetic resonance, July 17–22, 2016, Breckenridge, CO.
- **Valenti D.***; **Garbou, A.**; Rex, M.; Heider, E.; Harper, J. K., Refereed Poster Presentation, 251st American Chemical Society national meeting, Mar. 13–17, 2016, San Diego, CA.
- Harper, J. K.* Invited Oral Presentation, Experimental NMR Conference April 2015, Pacific Grove, CA.
- Harper, J. K.*; Hung, I.; Gan, Z. “*Measuring multiple ^{14}N - ^{13}C distances with the RESPDOR experiment*” Refereed Poster Presentations, Rocky Mountain conference on Magnetic resonance, July 13–17, 2014, Copper Mountain, CO.
- Harper, J. K.* Invited Oral Presentation, Small Molecule NMR Conference 2010, Portland, OR.
- Harper, J. K.* Invited Oral Presentation, Small Molecule NMR Conference 2008, Sante Fe NM. Invited Oral Presentation.

Regional conferences

- **Gale, C.***; Harper, J. K.; Song, H. “*Puke, blood and allelopathic chemicals: The role of ceratiolin in the natural history of the Florida rosemary grasshopper*”, Showcase of Undergraduate Research Excellence (SURE), University of Central Florida, April 4, 2013. Non-refereed poster, contributed.
- **Powell, J.***; Harper, J. K. “*Improving on high resolution crystal structures – a novel use of solid-state NMR data and computational refinement methods*”, Florida Annual Meeting and Exposition (FAME), Innisbrook, FL, May 17–20, 2013. Refereed poster, contributed.

- **Valenti, D.***; Harper, J. K. “*Isolation of natural products from endophytic fungi found in florida’s native flora*”, Florida Annual Meeting and Exposition (FAME), Innisbrook, FL, May 17–20, 2013 also presented at Showcase of Undergraduate Research Excellence (SURE), University of Central Florida, April 4th, 2013. Refereed poster, contributed.
- Harper, J. K.* “*Pursuing crystal structure in the absence of crystals or diffraction data*”, Florida Annual Meeting and Exposition (FAME), Innisbrook, FL, May 10, 2014. Refereed oral presentation.
- Heider, E. C.*; Harper, J. K. “*Demonstrations for guided inquiry in general, analytical and physical chemistry courses*”, Florida Annual Meeting and Exposition (FAME), Innisbrook, FL, May 10, 2014. Refereed oral presentation.

Recent invited seminars

- Harper, J. K.,* Invited seminar presentation “*Pursuing accurate crystallography without diffraction*”, Merck & Co., Aug. 30, 2019.
- Harper, J. K.,* Invited seminar presentation “*Pursuing crystallography without diffraction data*”, University of Windsor, Nov. 2, 2019.
- Harper, J. K.,* Invited seminar presentation “*NMR crystallography*”, University of Miami, Apr. 13, 2018.
- Harper, J. K.,* Invited seminar presentation on “*Selecting among theoretical model structures with shift tensor data – a path to structure?*”, Washington and Jefferson College, Apr. 10, 2016.
- **Powell, J.***; Harper, J. K. Invited seminar presentation on “*Selecting among theoretical model structures with ¹J_{CC} coupling*”, Washington and Jefferson College, Apr. 10, 2016.
- Harper, J. K.* Invited seminar presentation on “*Developing accurate crystallography without diffraction*”, Physics Colloquium, University of Central Florida, Sept. 2015.
- Harper, J. K.,* Invited seminar presentation on “*NMR Crystallography*”, National High Magnetic Field Laboratory, March 2013.

Grants (all grants listed are research grants)

Proposals funded before employment at BYU (proposals not funded are not listed)

1. Title: Developing accurate crystallography without diffraction.
Funding source: NSF CAREER
PI: James Harper (100%)
Co-PI: none
Financial Information: Total Direct Costs: \$365,324; Total Indirect Costs: \$129,657
Period: 02-15-15 to 02-15-20
2. Title: A combined analytical, theoretical and synthetic approach based on line narrowing spectroscopy for specific isomer determination of petroleum oil spills.
Funding source: Gulf of Mexico Research Initiative
PI: Andres Campiglia (70%)
Co-PI: James Harper (10%), Fernando Uribe-Romo (20%)

Financial Information: Total Direct Costs: \$1,071,303; Total Indirect Costs: \$451,982
Period: 01-1-16 to 12-31-18

3. Title: Acquisition of a liquid chromatography mass spectrometer (LC-MS) instrument.
Funding source: UCF internal funding
PI: Dmitry Kolpashchikov
Co-PI: Kevin D. Belfield, Andres D. Campiglia, Karin Y. Chumbimuni-Torres; James K. Harper (17%); Yu Yuan
Financial Information: Total costs: \$199,995.70; Matching funds: \$100,000
4. Title: Using $^{13}\text{C}/^{14}\text{N}$ distance measurements in NMR crystallography.
Funding source: National High Magnetic Field Laboratory (NHMFL)
PI: James Harper (100%)
Co-PI: None
Financial Information: Total costs: In-kind contribution of instrument time and staff assistance performing state-of-the-art experiments on some of the largest magnets in the world for a three year period.
Period: 03-15-13 to 03-15-16
5. Title: Acquisition of 800, 600 and 500 MHz solution-state NMR spectrometers.
Funding source: University of Central Florida acquisition from the Sanford-Burnham Institute
PI: Cherie Yestrebsky
Co-PI: David Richardson; James K. Harper (33%)
Financial Information: Total costs: \$750,000; Matching funds: \$100,000

Student proposals funded before employment at BYU

6. Title: Office of Undergraduate Research award
Funding agency: University of Central Florida
PI: Domenic Valenti
Co-PI: None: work was performed at UCF in James Harper's lab
Financial Information: Total costs: \$500.00
Period: 09-01-12 to 12-31-12
7. Title: Merck Internship for Excellence in Science.
Funding agency: Merck & Co.
PI: Tyler McCullough (Washington and Jefferson College)
Co-PI: None: work was performed at UCF in James Harper's lab
Financial Information: Total costs: \$5,000.00 for a 10 week period
Period: 05-15-15 to 08-01-15

Proposals submitted during employment at BYU

1. Title: Locating and orienting water in hydrates using solid-state NMR methods.
Funding source: National High Magnetic Field Laboratory
PI: James Harper (100%)
Co-PI: None
Financial Information: Total costs: In-kind contribution of instrument time and staff assistance performing state-of-the-art experiments on some of the largest magnets in the world for a three year period.
Period: 01-15-23 to 01-14-26
Status: Awarded
2. Title: Verifying the existence of 3.0 long C–C bonds with solid-state NMR.
Funding source: National High Magnetic Field Laboratory
PI: James Harper (100%)
Co-PI: None
Financial Information: Total costs: In-kind contribution of instrument time and staff assistance performing state-of-the-art experiments on some of the largest magnets in the world for a three year period.
Period: 01-15-20 to 01-14-23
Status: Awarded
3. Title: Verifying antioxidant activity of highly promising candidates from *in silico* predictions.
Funding source: Earl M. Woolley Innovation in Research Award.
PI: James Harper (100%)
Co-PI: None
Financial Information: Total Direct Costs: \$40,000; Total Indirect Costs: \$0.00
Period: 06-01-21 to 05-30-22
Status: Awarded
4. Title: Development and pilot testing of chemometrics POGIL activities
Funding source: The POGIL project
PI: Emily Heider (33%)
Co-PI: James Harper (33%), Joshus Hartman (33%, University of California, Riverside)
Financial Information: Total Costs, BYU: \$500.00
Period: 01-1-23 to 09-1-23
Status: Awarded
5. Title: Understanding the Origins of ultrahigh resolution crystal structures from NMR crystallography.
Funding source: National Science Foundation
PI: James Harper (100%)
Co-PI: None

Financial Information: Total Costs: \$415,733

Period: 08-1-20 to 07-31-23

Status: Declined

6. Title: Rationa *in silico* design of highly effective antioxidants to inhibit oxidative damage to petrochemical products.

Funding source: American Chemical Society, Petroleum Research Fund

PI: James Harper (100%)

Co-PI: None

Financial Information: Total Costs: \$110,000

Period: 09-1-21 to 08-31-23

Status: Declined

7. Title: Developing a solid-state NMR pathway to ultra high-resolution crystal structures of proteins.

Funding source: National Science Foundation

PI: James Harper (80%)

Co-PI: Joshua Hartman (20%), Wade Van Horn (10%)

Financial Information: Total Costs: \$563,025

Period: 08-1-20 to 07-31-23

Status: Declined

8. Title: A new crystal structure prediction protocol using quadrupolar NMR

Funding source: National Science Foundation

PI: James Harper

Co-PI: Robert Schurko (National High Magnetic Field Laboratory)

Financial Information: Total Costs: \$278,180 (BYU award only)

Period: 04-1-22 to 03-31-25

Status: Declined

9. Title: PIRE: Advanced non-metal low dimensional materials for photocatalytic devices

Funding source: National Science Foundation

PI: James Harper

Co-PI: Laurene Tetard (University of Central Florida)

Financial Information: Total Costs, BYU: \$345,488 (BYU award only)

Period: 01-1-23 to 12-31-25

Status: Declined

10. Title: Structured boron-containing materials with high carbon dioxide uptake

Funding source: Department of Energy, Science driven synthesis and assembly of innovative materials for direct air capture.

PI: Richard Blair (University of Central Florida)

Co-PI: Duy Le (University of Central Florida), Talat Raman (University of Central Florida), Laurene Tetard (University of Central Florida), James Harper (BYU), Omar Farha (Northwestern)

Financial Information: Total Costs, BYU: \$307,247 (BYU award only)

Period: 01-1-23 to 12-31-25

Status: Declined

Student proposals submitted at BYU

8. Title: Undergraduate Research award (3)

Funding source: Brigham Young University, Department of Chemistry

PI: Four undergraduates: Grace Nickles, Edward Mercado, Jacob Cheever and Riley Nickles

Co-PI: Work was performed in James Harper's lab.

Financial Information: Students were hourly employment with varying compensation

Period: 08-01-22 to present

Status: Awarded

Classes taught

Brigham Young University

1. Introductory chemistry for non-major, CHEM 105
2. Solution NMR spectroscopy, CHEM 569R
3. Physical chemistry for engineers, CHEM 467

University of Central Florida

1. Analytical Chemistry, Quantitative analysis CHM 3120
2. Physical Chemistry Lab, CHM 3411L
3. Applied Molecular Spectroscopy, CHM 5235
4. NMR spectroscopy, CHM 5937
5. Undergraduate research, CHM 4912
6. Doctoral research, CHM 7919
7. Introduction to chemical research, CHM 347, a joint three week course taught with Washington and Jefferson College (Pennsylvania) at the University of Central Florida.
8. Product operators in NMR spectroscopy, a short course taught at Utah Valley University for undergraduates.

Former students (*Denotes students whose work resulted in one or more publications.)

Graduate students

1. **Jacob Powell**,* Ph.D., Dissertation title: *Refinement of crystal structures with lattice including computational methods*. Graduated 2017 and is currently the NMR manager at Drexel University.
2. **Yueming Wang**,* Ph.D., Dissertation title: *Solution NMR characterization of hydrocarbon fuel producing fungal products*. Graduated 2019 and is currently the analytical laboratory manager at Smiters labs in Wareham, MA.
3. **Domenic Valenti**,* M.S., Graduated in 2016 is currently a field engineer for Agilent focusing on LC-MS.

4. **Keyton Kalakewich,*** Ph.D., Dissertation title: *Developing an NMR route to crystals structure in challenging materials*. Graduated in 2018 and is currently in the U.S. Navy.
5. **Samar Alheety,*** Ph.D., Dissertation title: *Fluorescence spectra of sterically strained isomers of C₂₄H₁₄ polycyclic aromatic hydrocarbons (PAHs) and characterization of bio-sourced, fluorescent ratiometric pH indicator with alkaline pK_a*. Graduated in 2020 and is currently an Assistant professor in Iraq.
6. **Luther Wang,*** Ph. D. Dissertation title: *Computationally assisted NMR crystallography: A path to unusually high-resolution crystal structures*. Graduated in 2022 and is currently employed as a programmer in San Diego.

Undergraduates

Geraldine Versfeld* 2017–2019, Title: *Verifying the existence of 3.0 Å long bonds using solid-state NMR*. Co-author one publication.

Julie Nedimeyer 2017, Title: *Identification of natural products from coral*.

Alex Elliott* 2017–2019, Title: *NMR crystallography*. Co-author of three publications.

Luther Wang* 2015–2018, Title: *Modeling the influence of thermal motion on chemical shift tensors*. Co-author of two publications as undergraduate and three as a graduate student.

Tyler McCollough*, Summer 2015, Joint student from Washington & Jefferson college and recipient of a Merck Research Internship (\$5,000) Title: *Isolation and characterization of a bioactive natural products from an endophytic fungus*.

Tyler Maxwell*, 2011-2013, Title: *Screening fungal extracts for volatile organic compounds using gas chromatography*. Co-author of one publication.

Harriett Eloranta*, 2011-2015, Title: *Monitoring the refinement of crystal structures with ¹⁵N solid-state NMR shift tensor data*. Co-author of one publication.

Dixie Bounds, 2012-2013, Title: *Exploration of ¹³C NMR difference in polymorphs of the explosive triacetone triperoxide (TATP)*.

Stephanie Gopal, 2011-2012, Title: *Discovering bioactive endophytic microbes in Florida plants*.

Dirk Emde*, 2011-present, Title: *Discovering new antioxidants – a theoretical approach*.

Winstona Louis, 2011-2012, Title: *NMR crystallography*

Derek Tishler*, 2012, Title: *NMR crystallography*. Co-author of one publication.

Matthew Gruber*, 2011-2012, Joint student from Washington & Jefferson college, Title: *NMR crystallography*. Co-author of one publication.

Service

Manuscript reviews:

Journal of Natural Products, Journal of Chemical Theory and Computation, Tetrahedron, Journal of Physical Chemistry, Journal of Chemical Physics, Journal of the American Chemical Society, Solid-state Nuclear Magnetic Resonance, Magnetic Resonance in Chemistry, Accounts of Chemical Research, Crystal Growth and Design, CrystEngComm, Journal of Computational Chemistry, Journal of Fungi, Natural Products Reports and Microbial Ecology, Magnetocgemistry,

Grant review panels

1. NSF, 2017, Ad hoc reviewer, Experimental program to stimulate competitive research (EPSCoR) research infrastructure improvement (RII) track 4: EPSCoR research fellows competition.
2. National Science Foundation, 2018, Member of a virtual panel (Chemical Measurements and Imaging program) tasked with reviewing grant applications and ranking them.
3. National Science Foundation, 2021, Member of a virtual panel (Chemical Measurements and Imaging program) tasked with reviewing grant applications and ranking them.

Service on Ph.D. and M.S. committees:

Ph.D. final defense

Worked completed at BYU

1. Luther Wang, Ph. D. final defense, Winter 2022

Worked completed before BYU employment

1. Jigna Patel, Ph.D. final defense, 2013
2. Walter Wilson, Ph.D final defense, 2014
3. Adam Woodward, Ph.D. final defense, 2014
4. Elaine Sherman, Ph.D. final defense, 2014
5. Carolina Franco, Ph.D. final defense, 2014
6. Anthony Moore, Ph.D. final defense, 2015
7. Alfonso Ballestas, M.S. final defense, 2015
8. Orilyzia Flores-Fernandez, Ph.D. final defense, 2015
9. Hector Riveria, Ph.D. final defense, 2015
10. Alaa Fadhel, Ph.D. final defense, 2016
11. Bassam Al-farhani, final defense, 2016
12. Shashank Saraf, Ph.D. final defense, 2016
13. Rebecca Karadeema's M.S. final defense, 2016
14. Nirvani Mujumdar, Ph.D. final defense, 2016
15. Jacob Powell, Ph.D. final defense, 2017
16. Alex Smith, Ph.D final defense, 2017
17. Jacob Todd, Ph.D. final defense, 2017
18. David Nash, Ph.D. final defense, 2017
19. Madeline Johnson, Ph.D. final defense, 2017
20. Keton Kalakewich, Ph.D. final defense, 2017
21. Yadong Zhou Ph.D. final defense, 2018
22. Maha Al-Tameemi, Ph.D. final defense, 2018
23. Hugh Hayes, Ph.D. final defense, 2018
24. Kahn Trieu, Ph.D. final defense, 2019
25. Gavin Pour, Ph.D. final defense, 2019
26. Ilia Toli, Ph.D. final defense, 2019
27. Alisha Kellner, Ph.D. final defense, 2019
28. Yuemin Wang, Ph.D. final defense, 2019

29. Samar Alheety, Ph. D. final defense, 2020

Ph.D. candidacy

Worked completed at BYU

1. Kai Webber, Ph.D. candidacy, Fall 2021
2. Nathaniel Axtell, Ph. D. candidacy, Fall 2021
3. Ryan Toomey, Ph.D. candidacy, Fall 2022
4. Michael Davenport, Ph.D. candidacy, Fall 2022

Worked completed before BYU employment

1. Korina Cailmag, Ph.D. candidacy, 2012
2. Shashank Saraf, Ph.D. candidacy, 2012
3. Eileen Sherman, Ph.D. candidacy, 2013
4. Adam Woodward, Ph.D. candidacy, 2013
5. Bassam Al-farhani, Ph.D. candidacy, 2014
6. Anthony Moore, Ph.D. candidacy, 2014
7. Alaa Fadhel, Ph.D. candidacy, 2014
8. Jacob Todd, Ph.D. candidacy, 2014
9. Alexandra Smith, Ph.D. candidacy, 2015
10. Nirvani Mujumdar, Ph.D. candidacy, 2015
11. Maha Al-tameemi, Ph.D. candidacy, 2015
12. David Nash, Ph.D. candidacy, 2015
13. Jacob Powell, Ph.D. candidacy, 2015
14. Keyton Kalakewich, Ph.D. candidacy, 2016
15. Madeline Johnson, Ph.D. candidacy, 2016
16. Hugh Hayes, Ph.D. candidacy, 2016
17. Khang Trieu, Ph.D. candidacy, 2016
18. Yadong Zhou, Ph.D. candidacy, 2017
19. Menqiong Liu, Ph.D. candidacy, 2017
20. Khalaf Jasim, Ph.D. candidacy, 2017
21. Gavin Pour, Ph.D. candidacy, 2017
22. Sameer Ezatt, Ph.D. candidacy, 2017
23. Tyler Maxwell, Ph.D. candidacy, 2017
24. Yuemin Wang, Ph.D. candidacy, 2017
25. Ilia Toli, Ph.D. candidacy, 2018
26. Demetrius Vasquez, Ph.D. candidacy, 2018
27. Wesley Newsome, Ph.D. candidacy, 2018
28. Anthony Altomare, Ph.D. candidacy, 2018
29. Eduardo Romero-Camacho, Ph.D. candidacy, 2018
30. Mohammadreza Chehelamirani, Ph.D. candidacy, 2019
31. Sadia Arif, Ph.D. candidacy, 2019
32. James Janesko, Ph.D. candidacy, 2019
33. Alisha Kellner, Ph.D. candidacy, 2019

Honors in major (undergraduate). All work completed at UCF

1. Erika Nafi, Honors in Major, Fall 2012
2. Renan Gongoran, Honors in Major, Fall 2013
3. Tamar Yishay, Honors in Major, Spring 2019