

PUBLICATIONS (Note: as of 1/1/15, I have an [h-index](#) of 30 using Web of Science and Google Scholar)
(Most links are to doi.dx.org. Links to my personal website conform to the rules of [self-archiving](#))

- [1] A. Buffington, H. S. Hudson, and C. H. Booth, "A laboratory measurement of CCD photometric and dimensional stability." [Pub. Astr. Soc. Pac.](#) **652**, 688 (1990). doi: 10.1086/132692
- [2] A. Buffington, C. H. Booth, and H. S. Hudson, "Using image area to control CCD systematic errors in spaceborne photometric and astrometric time-series measurements." [Pub. Astr. Soc. Pac.](#) **665**, 685 (1991). doi: 10.1086/132868
- [3] C. H. Booth, F. Bridges, J. B. Boyce, T. Claeson, Z. X. Zhao, and P. Cervantes, "Local disorder in the oxygen environment around praseodymium in $Y_{1-x}Pr_xBa_2Cu_3O_7$." [Mat. Rec. Soc. Symp. Proc.](#) **307**, 117 (1993).
- [4] C.-H. Park, B. O. Wells, J. DiCarlo, Z. X. Shen, J. R. Salem, D. S. Bethune, C. S. Yannoni, R. D. Johnson, M. S. de Vries, C. H. Booth, F. Bridges, and P. Pianetta, "Structural determination on Y ions in C_{82} from EXAFS experiments." [Chem. Phys. Lett.](#) **213**, 196 (1993). doi: 10.1016/0009-2614(93)85440-Y
- [5] J. J. Rehr, C. H. Booth, F. Bridges, and S. I. Zabinsky, "X-ray-absorption fine-structure in embedded atoms." [Phys. Rev. B \(Rapid Comm.\)](#) **49**, 12347 (1994). doi: 10.1103/PhysRevB.49.12347
- [6] C. H. Booth, F. Bridges, J. B. Boyce, T. Claeson, Z. X. Zhao, and P. Cervantes, "Local disorder in the oxygen environment around praseodymium in $Y_{1-x}Pr_xBa_2Cu_3O_7$." [Phys. Rev. B](#) **49**, 3432 (1994). doi: 10.1103/PhysRevB.49.3432
- [7] C. H. Booth, F. Bridges, J. B. Boyce, T. Claeson, Z. X. Zhao, and P. Cervantes, "Local disorder in the oxygen environment around praseodymium in $Y_{1-x}Pr_xBa_2Cu_3O_7$." [Physica C](#) **235-240**, 1033 (1994). doi: 10.1016/0921-4534(94)91741-8
- [8] F. Bridges, G. G. Li, and C. H. Booth, "Large local distortions introduced by defects in $YBa_2Cu_3O_7$ superconductor: an x-ray absorption study." [Radiation Effects and Defects in Solids](#) **137**, 351 (1995). doi: 10.1080/10420159508222750
- [9] F. Bridges, C. H. Booth, and G. G. Li, "An iterative approach to atomic background removal in XAFS data analysis." [Physica B \(Proc. from XAFS VIII\)](#) **208&209**, 121 (1995). doi: 10.1016/0921-4526(94)00827-I
- [10] G. G. Li, F. Bridges, and C. H. Booth, "XAFS standards: a comparison of experiments and theory." [Phys. Rev. B](#) **52**, 6332 (1995). doi: 10.1103/PhysRevB.52.6332
- [11] C. H. Booth, F. Bridges, E. D. Bauer, G. G. Li, J. B. Boyce, T. Claeson, C. H. Chu, and Q. Xiong, "XAFS measurements of negatively correlated atomic displacements in $HgBa_2CuO_{4+\delta}$." [Phys. Rev. B \(Rapid Comm.\)](#) **52**, R15745 (1995). doi: 10.1103/PhysRevB.52.R15745
- [12] J. J. Rehr, C. H. Booth, F. Bridges, and S. I. Zabinsky, "X-ray-absorption fine-structure in embedded atoms: Reply." [Phys. Rev. B](#) **53**, 9468 (1996). doi: 10.1103/PhysRevB.53.9468
- [13] C. H. Booth, F. Bridges, J. Boyce, T. Claeson, B. M. Lairson, R. Liang, and D. A. Bonn, "Comparison of local structure measurements from c -axis polarized XAFS between a film and a single crystal of $YBa_2Cu_3O_{7-\delta}$ as a function of temperature." [Phys. Rev. B](#) **54**, 9542 (1996). doi: 10.1103/PhysRevB.54.9542
- [14] F. Bridges, C. H. Booth, G. G. Li, E. D. Bauer, J. B. Boyce and T. Claeson, "Does the local structure play a role in high temperature superconductivity?" [Superlattices and Microstructures](#) **19**, 313 (1996). doi: 10.1006/spmi.1996.0035
- [15] E. D. Bauer, F. Bridges, C. H. Booth, J. B. Boyce, T. Claeson, G. Brorsson and Y. Suzuki, "Local-structure study about Co in $YBa_2(Cu_{1-x}Co_x)_3O_{7-\delta}$ thin-films using polarized XAFS." [Phys. Rev. B](#) **54**, 13352 (1996). doi: 10.1103/PhysRevB.54.13352

- [16] C. H. Booth, F. Bridges, G. J. Snyder, and T. H. Geballe, “Evidence of magnetization-dependent polaron distortion in $\text{La}_{1-x}\text{A}_x\text{MnO}_3$, A=Ca, Pb.” *Phys. Rev. B (Rapid Comm.)* **54**, R15606 (1996). doi: 10.1103/PhysRevB.54.R15606
- [17] C. H. Booth, F. Bridges, Z. Kvitky, L. Romano, F. Ponce, “Environment about Indium in $\text{Ga}_{1-x}\text{In}_x\text{N}$ from In and Ga K-edge XAFS.” *J. de Phys. IV (Proc. from XAFS IX)* **7**(#C2/pt.2), 1253 (1997). doi: 10.1051/jp4:19972219
- [18] G. K. Marasinghe, M. Karabulut, C. S. Ray, D. E. Day, M. G. Shumsky, W. B. Yelon, C. H. Booth, P. G. Allen, and D. K. Shuh, “Structural features of iron phosphate glasses.” *J. Non-Cryst. Solids* **222**, 144 (1997). doi: 10.1016/S0022-3093(97)90107-1. LBNL-41363
- [19] F. Bridges, E. D. Bauer, C. H. Booth, Z. Kvitky, Z. Trajanovic, I. Takeuchi, C. J. Lobb, T. Venkatesan, “Local-structure study about Co in a -axis films of $\text{YBa}_2(\text{Cu}_{0.93}\text{Co}_{0.07})_3\text{O}_{7-\delta}$ using polarized XAFS.” *J. de Phys. IV (Proc. from XAFS IX)*, **7**(#C2/pt.2), 1093 (1997). doi: 10.1051/jp4:19972145
- [20] G. H. Kwei, C. H. Booth, F. Bridges, and M. A. Subramanian, “Single valence and structural disorder in the CMR pyrochlore $\text{Tl}_2\text{Mn}_2\text{O}_7$.” *Phys. Rev. B (Rapid Comm.)* **55**, R688 (1997). doi: 10.1103/PhysRevB.55.R688
- [21] G. J. Snyder, C. H. Booth, F. Bridges, R. Hiskes, S. DiCarolis, M. R. Beasley and T. H. Geballe, “Local structure, transport and rare earth magnetism in the ferrimagnetic perovskite $\text{Gd}_{0.66}\text{Ca}_{0.33}\text{MnO}_3$.” *Phys. Rev. B* **55**, 6453 (1997). doi: 10.1103/PhysRevB.55.6453
- [22] A. L. Cornelius, J. M. Lawrence, J. L. Sarrao, Z. Fisk, M. F. Hundley, G. H. Kwei, J. D. Thompson, C. H. Booth, and F. Bridges, “Experimental studies of the phase-transition in $\text{YbIn}_{1-x}\text{Ag}_x\text{Cu}_4$.” *Phys. Rev. B* **56**, 7993 (1997). doi: 10.1103/PhysRevB.56.7993
- [23] R. H. Heffner, M. F. Hundley, and C. H. Booth, “Effects of localized holes on charge transport, local structure and spin dynamics in the metallic state of CMR $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$.” *Mat. Rec. Soc. Symp. Proc.* **494**, 275 (1998).
- [24] G. K. Marasinghe, M. Karabulut, C. S. Ray, D. E. Day, C. H. Booth, P. G. Allen, and D. K. Shuh, “Redox characteristics and structural properties of iron phosphate glasses: a potential host matrix for vitrifying high level nuclear waste.” In *Proceedings of Environmental Issues and Waste Management Technologies in Ceramic and Nuclear Industries IV*, Ceramic Transactions **87**, 261 (1998). LBNL-41426
- [25] C. H. Booth, F. Bridges, G. H. Kwei, J. M. Lawrence, A. L. Cornelius, and J. J. Neumeier, “Direct relationship between magnetism and MnO_6 distortions in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$.” *Phys. Rev. Lett.* **80**, 853 (1998). doi: 10.1103/PhysRevLett.80.853
- [26] C. H. Booth, F. Bridges, G. H. Kwei, J. M. Lawrence, A. L. Cornelius, and J. J. Neumeier, “Lattice effects in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ ($x=0 \rightarrow 1$): Relationship between distortions, charge distribution, and magnetism.” *Phys. Rev. B* **57**, 10440 (1998). doi: 10.1103/PhysRevB.57.10440
- [27] J. Z. Ren, G. A. Rose, R. S. Williams, C. H. Booth, D. K. Shuh, P. G. Allen, J. J. Bucher, and N. M. Edelstein, “Microstructure and phase transitions in disordered $\text{Ti}_{1-x}\text{Ga}_x\text{N}$ thin films grown by pulsed laser deposition.” *J. Appl. Phys.* **83**, 7613 (1998). doi: 10.1063/1.367877. LBNL-46197
- [28] C. H. Booth, D. E. MacLaughlin, R. H. Heffner, R. Chau, M. B. Maple and G. H. Kwei, “Pd/Cu site interchange and non-Fermi-liquid behavior in UCu_4Pd .” *Phys. Rev. Lett.* **81**, 3960 (1998). doi: 10.1103/PhysRevLett.81.3960
- [29] J. L. Sarrao, C. D. Immer, Z. Fisk, C. H. Booth, E. Figueroa, J. M. Lawrence, R. Modler, A. L. Cornelius, M. F. Hundley, G. H. Kwei, J. D. Thompson, and F. Bridges, “Physical properties of YbXCu_4 ($X=\text{Ag}, \text{Au}, \text{Cd}, \text{Mg}, \text{Tl}, \text{Zn}$) compounds.” *Phys. Rev. B* **59**, 6855 (1999). doi: 10.1103/PhysRevB.59.6855

- [30] A. L. Cornelius, A. J. Arko, J. L. Sarrao, J. D. Thompson, M. F. Hundley, C. H. Booth, N. Harrison, and P. M. Oppeneer, "Electronic properties of UX_3 ($X=Ga$, Al , and Sn) compounds in high magnetic fields: Transport, specific heat, magnetization and quantum oscillations." *Phys. Rev. B* **59**, 14473 (1999). doi: 10.1103/PhysRevB.59.14473
- [31] C. H. Booth, E. Figueroa, J. M. Lawrence, M. F. Hundley, and J. D. Thompson, "The effect of magnetic fields on the metal-insulator transition in $BaVS_3$." *Phys. Rev. B* **60**, 14852 (1999). doi: 10.1103/PhysRevB.60.14852
- [32] C. H. Booth, P. G. Allen, J. J. Bucher, N. M. Edelstein, D. K. Shuh, G. K. Marasinghe, M. Karabulut, C. S. Ray, and D. E. Day, "Oxygen and Phosphorus Coordination Around Iron in Iron-Phosphate Glasses with UO_2 or Na_2O and Crystalline Ferric Ferrous Pyrophosphate." *J. Mater. Res.* **14**, 2628 (1999). doi: 10.1557/JMR.1999.0352. LBNL-42204
- [33] F. Bridges, M. Anderson, D. Cao, M. Anderson, C. H. Booth, J. J. Neumeier and G. J. Snyder, "Temperature/Magnetization induced distortions in the local structure of substituted $LaMnO_3$." *J. Synchrotron Rad. (Proc. from XAFS X)* **6**, 543 (1999). doi: 10.1107/S0909049598016008
- [34] D. Cao, F. Bridges, C. H. Booth, and D. Worledge, "The effect of the annealing temperature on the local distortions of $La_{0.67}Ca_{0.33}MnO_3$ thin films." *J. Synchrotron Rad. (Proc. from XAFS X)* **6**, 682 (1999).
- [35] F. Bridges, C. H. Booth, D. Cao, and M. Anderson, "The important role of local distortions and their connection with magnetism and transport in the "colossal" magnetoresistance systems, $La_{1-x}A_xMnO_3$." *Radiation Effects and Defects in Solids* **149**, 221 (1999). doi: 10.1080/10420159908230159
- [36] C. H. Booth, F. Bridges, J. J. Neumeier, E. L. Brosha, T. H. Geballe, G. J. Snyder and G. H. Kwei, "Effects of Magnetization on Hole Localization and MnO_6 Octahedra Disorder in Hole-Doped Lanthanum Manganese Perovskites." In *Proceedings of the Euroconference on Polarons: Pairing, Magnetism, Erice, Sicily, June 1998, J. Superconductivity* **12**, 295 (1999). doi: 10.1023/A:1007780727538
- [37] F. Bridges, C. H. Booth, G. H. Kwei, J. J. Neumeier, and G. A. Sawatzky, "Temperature dependent changes of the Mn 3d and 4p bands near T_c in colossal magnetoresistive systems: a XANES study of $La_{1-x}Ca_xMnO_3$." *Phys. Rev. B (Rapid Comm.)* **61**, R9237 (2000). doi: 10.1103/PhysRevB.61.R9237
- [38] D. Cao, F. Bridges, D. C. Worledge, C. H. Booth, T. Geballe, "The effect of the annealing temperature on the local distortion of $La_{0.67}Ca_{0.33}MnO_3$ thin films." *Phys. Rev. B* **61**, 11373 (2000). doi: 10.1103/PhysRevB.61.11373
- [39] C. H. Booth, J. S. Gardner, G. H. Kwei, R. H. Heffner, F. Bridges, and M. A. Subramanian, "Lattice disorder in the geometrically-frustrated spin glass pyrochlore $Y_2Mo_2O_7$." *Phys. Rev. B (Rapid Comm.)* **62**, R755, (2000). doi: 10.1103/PhysRevB.62.R755. LBNL-44361
- [40] D. Cao, F. Bridges, C. H. Booth, and J. J. Neumeier, "Changes in the local structure of a $La_{0.70}Ca_{0.30}MnO_3$ CMR sample induced by a magnetic field." *Phys. Rev. B (Rapid Comm.)* **62**, R8954 (2000). doi: 10.1103/PhysRevB.62.8954
- [41] M. Karabulut, G. K. Marasinghe, C. S. Ray, D. E. Day, G. D. Waddill, P. G. Allen, C. H. Booth, J. J. Bucher, D. L. Caulder, D. K. Shuh, and M. Grimsditch, "Local environment of the iron and uranium ions in vitrified iron phosphate glasses studied by Fe K and U L_{III}-edge X-ray absorption fine structure spectroscopy." *J. Mater. Res.* **15**, 1972 (2000). doi: 10.1557/JMR.2000.0284. LBNL-45213
- [42] C. H. Booth, E. D. Bauer, M. B. Maple, J. M. Lawrence, G. H. Kwei, and J. L. Sarrao, "Lattice disorder in strongly correlated lanthanide and actinide intermetallics." *J. Synchrotron Rad. (Proc. from XAFS XI)* **8**, 191 (2000). doi: 10.1107/S0909049500019026. LBNL-47279

- [43] J. M. Lawrence, P. S. Riseborough, C. H. Booth, J. L. Sarrao, J. D. Thompson, and R. Osborn, "Slow Crossover in Yb_xCu₄ Intermediate Valence Compounds." *Phys. Rev. B* **63**, 054427, (2001). doi: 10.1103/PhysRevB.63.054427. LBNL-46027
- [44] F. Bridges, C. H. Booth, M. Anderson, G. H. Kwei, J. J. Neumeier,, J. Snyder, J. Mitchell, and J. S. Gardner, "Mn *K*-edge XANES studies of the La_{1-x}A_xMnO₃ systems (A=Ca, Ba, Pb)." *Phys. Rev. B* **63**, 214405 (2001). doi: 10.1103/PhysRevB.63.214405
- [45] C. H. Booth, J. L. Sarrao, M. F. Hundley, A. L. Cornelius, G. H. Kwei, A. Bianchi, Z. Fisk, and J. M. Lawrence, "Local and average crystal structure and displacements of La¹¹B₆ and EuB₆ as a function of temperature." *Phys. Rev. B* **63**, 224302 (2001). doi: 10.1103/PhysRevB.63.224302. LBNL-47280
- [46] D. Cao, F. Bridges, M. Anderson, A. P. Ramirez, M. Olapinski, M. A. Subramanian, C. H. Booth, and G. H. Kwei, "Local distortions in La_{0.7}Ca_{0.3}Mn_{1-b}A_bO₃ (A=Ti and Ga) colossal magnetoresistance samples: Correlations with magnetization and evidence for cluster formation." *Phys. Rev. B* **64**, 184409 (2001). doi: 10.1103/PhysRevB.64.184409
- [47] F. Bridges, D. Cao, M. Anderson, A. P. Ramirez, M. Olapinski, M .A. Subramanian, C. H. Booth, and G. H. Kwei, "Changes of the local distortions and colossal magnetoresistive properties of La_{0.7}Ca_{0.3}MnO₃ induced by Ti or Ga defects." In *Proceedings of the 14th International Conference on Defects in Insulating Materials, Johannesburg, South Africa, 3-7 April 2000*, Radiation Effects and Defects in Solids **155**, 37 (2001). LBNL-50907
- [48] B. P. McGrail, J. P. Icenhower, D. K. Shuh, P Liu, J. G. Darab, D. R. Baer, S. Thevuthasan, V. Shutthanandan, M. H. Engelhard, C. H. Booth, P. Nachimuthu, "The structure of Na₂O-Al₂O₃-SiO₂ glass: Impact on sodium ion exchange in H₂O and D₂O." *J. Non-Cryst. Solids* **296**, 10 (2001). doi: 10.1016/S0022-3093(01)00890-0. LBNL/ALS-43658
- [49] C. H. Booth, E.-W. Scheidt, U. Killer, A. Weber, and S. Kehrein, "Annealing, lattice disorder and non-Fermi liquid behavior in UCu₄Pd." *Phys. Rev. B (Rapid Comm.)* **66**, 140402 (2002). doi: 10.1103/PhysRevB.66.140402. LBNL-51188
- [50] P. J. Panak, R. Knopp, C. H. Booth, H. Nitsche, "Spectroscopic studies on the interaction of U(VI) with *Bacillus sphaericus*." *Radiochim. Acta* **90**, 779 (2002). doi: 10.1524/ract.2002.90.9-11_2002.779. LBNL-49460
- [51] P. G. Allen, A. L. Henderson, E. R. Sylwester, P. E. A. Turchi, T. H. Shen, G. F. Gallegos, and C. H. Booth, "Vibrational properties of Ga-stabilized δ-Pu by extended x-ray absorption fine-structure." *Phys. Rev. B* **65**, 214107 (2002). doi: 10.1103/PhysRevB.65.214107. LBNL-49403
- [52] E. D. Bauer, C. H. Booth, G. H. Kwei, R. Chau, and M. B. Maple, "Effects of lattice disorder in the UCu_{5-x}Pd_x system." *Phys. Rev. B* **65**, 245114 (2002). doi: 10.1103/PhysRevB.65.245114. LBNL-49402
- [53] A. L. Cornelius, J. M. Lawrence, T. Ebihara, P. S. Riseborough, C. H. Booth, M. F. Hundley, P. G. Pagliuso, J. L. Sarrao, J. D. Thompson, M .H. Jung, A. H. Lacerda, and G. H. Kwei, "Two energy scales and slow crossover in YbAl₃." *Phys. Rev. Lett.* **88**, 117201 (2002). doi: 10.1103/PhysRevLett.88.117201. LBNL-49405
- [54] M. Karabulut, G. K. Marasinghe, C. S. Ray, D. E. Day, G. D. Waddill, C. H. Booth, P. G. Allen, J. J. Bucher, D. L. Caulder, D. K. Shuh, "An investigation of the local iron environment in iron phosphate glasses having different Fe(II) concentrations." *J. Non-Cryst. Solids* **306**, 182 (2002). doi: 10.1016/S0022-3093(02)01053-0 LBNL-46325
- [55] M. Karabulut, G. K. Marasinghe, C. A. Click, E. Metwalli, R. K. Brow, C. H. Booth, J. J. Bucher, D. K. Shuh, T. I. Suratwala, and J. H. Campbell, "XAFS investigation of platinum impurities in phosphate glasses." *J. Amer. Cer. Soc.* **85**, 1093 (2002). doi: 10.1111/j.1151-2916.2002.tb00228.x. LBNL-47272

- [56] M. Karabulut, G. K. Marasinghe, E. Metwalli, A. K. Wittenauer, R. K. Brow, C. H. Booth, and D. K. Shuh, “Neodymium and erbium coordination environments in phosphate glasses.” *Phys. Rev. B* **65**, 104206 (2002). doi: 10.1103/PhysRevB.65.104206. LBNL-49424
- [57] J. M. Lawrence, T. Ebihara, P. S. Riseborough, C. H. Booth, P. G. Pagliuso, J. L. Sarrao, and J. D. Thompson, “Two energy scales and slow crossover in YbAl_3 .” *Physica B (Proc. from SCES01)* **312**, 324 (2002). doi: 10.1016/S0921-4526(01)01112-7. LBNL-49404
- [58] C. H. Booth, E. D. Bauer, M. B. Maple, R. Chau, and G. H. Kwei, “Pd/Cu site interchange in $\text{UCu}_{5-x}\text{Pd}_x$,” *Physica B (Proc. from SCES01)* **312**, 408 (2002). doi: 10.1016/S0921-4526(01)01136-X. LBNL-48338
- [59] S. Schmidt, F. Reinert, D. Ehm, G. Nicolay, O. Trovarelli, C. H. Booth, R. Hauser, and S. Hufner, “High-resolution photoemission spectroscopy on intermediate valent Yb-compounds: predictions of the Anderson impurity model.” *Physica B (Proc. from SCES01)* **312**, 675 (2002). doi: 10.1016/S0921-4526(01)01533-2. LBNL-52010
- [60] D. A. Shaughnessy, H. Nitsche, C. H. Booth, D. K. Shuh, G. A. Waychunas, R. E. Wilson, K. J. Cantrell, R. J. Serne, “Complexation and redox interactions between aqueous plutonium and manganese oxide interfaces.” In *Proceedings of the Actinides 2001 International Conference, Hayama, Japan, 3-9 Nov. 2001*, *J. Nucl. Sci. Technol. Supp.* **3**, 274 (2002). LBNL-47777
- [61] S.-W. Han, C. H. Booth, E. D. Bauer, and M. B. Maple, “Temperature dependent x-ray diffraction study of Pd/Cu site interchange in non-Fermi liquid UCu_4Pd .” *Acta Phys. Pol. B (Proc. from SCES02)* **34**, 403 (2003). LBNL-50908
- [62] P. J. Panak, C. H. Booth, D. L. Caulder, J. J. Bucher, D. K. Shuh, and H. Nitsche, “X-ray absorption fine structure spectroscopy of plutonium complexes with *bacillus sphaericus*.” *Radiochi. Acta* **90**, 315 (2002). doi: 10.1524/ract.2002.90.6.315. LBNL-49271
- [63] D. A. Shaughnessy, H. Nitsche, C. H. Booth, D. K. Shuh, G. A. Waychunas, R. E. Wilson, K. J. Cantrell, R. J. Serne, “Molecular interfacial reactions between Pu (VI) and manganese oxide minerals manganite and hausmannite.” *Environ. Sci. Technol.* **37**, 3367 (2003). doi: 10.1021/es025989z. LBNL-51325
- [64] E. J. Nelson, K.J.M. Blobaum, M.A. Wall, P.G. Allen, A.J. Schwartz, and C.H. Booth, “Local structure and vibrational properties of α' -Pu martensite in Ga-stabilized δ -Pu.” *AIP Conf. Proc.* **673**, 187 (2003). doi: 10.1063/1.1594599
- [65] E. J. Nelson, K.J.M. Blobaum, M.A. Wall, P.G. Allen, A.J. Schwartz, and C.H. Booth, “Local structure and vibrational properties of α' -Pu martensite in Ga-stabilized δ -Pu.” *Phys. Rev. B* **67**, 224206 (2003). doi: 10.1103/PhysRevB.67.224206. LBNL-52413 (UCRL-JC-151541)
- [66] C. H. Booth, S.-W. Han, S. Suellow, and J.A. Mydosh, “Local lattice symmetry of spin-glass and antiferromagnetic URh_2Ge_2 .” In *Proceedings of the International Conference on Magnetism (ICM 2003), Rome, Italy, July 27-August 1, 2003*, *J. Magn. Magn. Mater.* **272-276**, 941 (2004). doi: 10.1016/j.jmmm.2003.12.011. LBNL-52447
- [67] C. H. Booth, L. Shlyk, K. Nenkov, J.G. Huber, and L.E. De Long, “X-ray absorption fine structure and field-dependent specific heat measurements of non-Fermi liquid $\text{U}_3\text{Ni}_3\text{Sn}_4$.” *Phys. Rev. B* **69**, 104430 (2004). doi: 10.1103/PhysRevB.69.104430. LBNL-52457
- [68] S.-W. Han, C.H. Booth, E.D. Bauer, J.M. Lawrence, Huang P. H., and Y.Y. Chen, “Disorder-induced Kondo behavior in nanoparticle CeAl_2 .” In *Proceedings of the International Conference on Magnetism, Rome, Italy, July 22-August 1, 2003*, *J. Magn. Magn. Mater.* **272-276**, E101 (2004). doi: 10.1016/j.jmmm.2003.11.208. LBNL-52531

- [69] C. H. Booth, S.-W. Han, S. Skanthakumar, and J. L. Sarrao, "Lattice disorder and magnetism in *f*-electron intermetallics." In *Proceedings of At the Frontiers of Condensed Matter II workshop, Buenos Aires, Argentina, June 22-26, 2004*, **Physica B** **354**, 313 (2004). doi: 10.1016/j.physb.2004.09.088. LBNL-55996.
- [70] E. D. Bauer, C. H. Booth, J. M. Lawrence, M. F. Hundley, J. L. Sarrao, J. D. Thompson, P. S. Riseborough, and T. Ebihara, "Anderson lattice behavior in $\text{Yb}_{1-x}\text{Lu}_x\text{Al}_3$." **Phys. Rev. B** **69**, 125102 (2004). doi: 10.1103/PhysRevB.69.125102. LBNL-53890
- [71] S.-W. Han, J. S. Gardner, and C. H. Booth, "Structural properties of the geometrically frustrated pyrochlore $\text{Tb}_2\text{Ti}_2\text{O}_7$." **Phys. Rev. B** **69**, 024416 (2004). doi: 10.1103/PhysRevB.69.024416. LBNL-54103
- [72] N. Mannella, A. Rosenhahn, C. H. Booth, S. Marchesini, B. S. Mun, S.-H. Yang, K. Ibrahim, Y. Tomioka, and C. S. Fadley, "Direct observation of high-temperature polaronic behavior in colossal magnetoresistive manganites." **Phys. Rev. Lett.** **92**, 166401 (2004). doi: 10.1103/PhysRevLett.92.166401. LBNL-54493
- [73] C. H. Booth, and F. Bridges, "Improved self-absorption correction for extended x-ray absorption fine-structure measurements." In *Proceedings of the 12th International Conference on X-ray Absorption Fine Structure (XAFS XII); Malmo, Sweden; June 22-27, 2003*. **Physica Scripta** **T115**, 202 (2005). doi: 10.1238/Physica.Topical.115a00202. LBNL-52864
- [74] M. Daniel, S.-W. Han, C. H. Booth, A. L. Cornelius, P. G. Pagliuso, J. L. Sarrao and J. D. Thompson, "X-ray absorption studies of the local structure and *f*-level occupancy in $\text{CeIr}_{1-x}\text{Rh}_x\text{In}_5$." **Phys. Rev. B** **71**, 054417 (2005). doi: 10.1103/PhysRevB.71.054417. LBNL-54699
- [75] M. Daniel, S.-W. Han, C. H. Booth, A. L. Cornelius, E. D. Bauer, and J. L. Sarrao, "Local structure around Sn in $\text{CeCoIn}_{5-x}\text{Sn}_x$." **Physica B** **359-361**, 401 (2005). doi: 10.1016/j.physb.2005.01.077. LBNL-55461.
- [76] E. J. Nelson, P. G. Allen, K. J. M. Blobaum, M. A. Wall, and C. H. Booth, "Local structure and vibrational properties of α -Pu, and the α -U charge density wave." **Phys. Rev. B** **71**, 184113 (2005). doi: 10.1103/PhysRevB.71.184113. LBNL-56127.
- [77] M. Daniel, E. D. Bauer, S.-W. Han, C. H. Booth, A. L. Cornelius, P. G. Pagliuso, and J. L. Sarrao, "Perturbing the superconducting planes in CeCoIn₅ by Sn substitution." **Phys. Rev. Lett.** **95**, 016406 (2005). doi: 10.1103/PhysRevLett.95.016406 LBNL-56725
- [78] C. H. Booth, M. D. Walter, M. Daniel, W. W. Lukens, and R. A. Andersen, "Self-contained Kondo effect in single molecules." **Phys. Rev. Lett.** **95**, 267202 (2005). doi: 10.1103/PhysRevLett.95.267202. LBNL-57492
- [79] A. D. Christianson, J. M. Lawrence, A. M. Lobos, A. A. Aligia, E. D. Bauer, N. O. Moreno, C. H. Booth, E. A. Goremychkin, J. L. Sarrao, J. D. Thompson, C. D. Batista, F. R. Trouw, M. P. Hehlen, "Anisotropic intermediate valence in $\text{Yb}_2\text{M}_3\text{Ga}_9$ ($\text{M} = \text{Rh}, \text{Ir}$)."**Phys. Rev. B** **72**, 081102 (2005). doi: 10.1103/PhysRevB.72.081102. LBNL-57499
- [80] Karabulut, M., G.K. Marasinghe, E. Metwalli, A.K. Wittenauer, R.K. Brow, C.H. Booth, J.J. Bucher, and D.K. Shuh, "An EXAFS investigation of rare-earth local environment in ultraphosphate glasses." **J. Non-Cryst. Solids**, **351**, 795 (2005). doi: 10.1016/j.jnoncrysol.2005.02.009. LBNL-58205
- [81] A. D. Christianson, J. M. Lawrence, J. L. Zarestky, H. S. Suzuki, J. D. Thompson, M. F. Hundley, J. L. Sarrao, C. H. Booth, D. Antonio, and A. L. Cornelius, "Antiferromagnetism in Pr_3In ." **Phys. Rev. B** **72**, 024402 (2005). doi: 10.1103/PhysRevB.72.024402. LBNL-58855
- [82] S.-W. Han, C. H. Booth, E. D. Bauer, P. H. Huang, Y. Y. Chen, J. M. Lawrence, "Lattice disorder and size-induced Kondo behavior in CeAl_2 and CePt_{2+x} ." **Phys. Rev. Lett.** **97**, 097204 (2006). doi: 10.1103/PhysRevLett.97.097204. LBNL-59846
- [83] C. H. Booth, "First report on EXAFS study of PZT:SNO powders from EPCOS." (2006). LBNL-59951

- [84] G. Ehlers, J. S. Gardner, C. H. Booth, M. Daniel, K. C. Kam, A. K. Cheetham, D. Antonio, H. E. Brooks, A. L. Cornelius, S. T. Bramwell, J. Lago, W. Häussler, N. Rosov, “The dynamics of diluted Ho spin ice $\text{Ho}_{2-x}\text{Y}_x\text{Ti}_2\text{O}_7$ studied by neutron spin echo spectroscopy and ac susceptibility.” *Phys. Rev. B* **73**, 174429 (2006). doi: 10.1103/PhysRevB.73.174429. LBNL-60104
- [85] Y. Y. Chen, P. H. Huang, C. H. Booth and J. M. Lawrence, “Disorder effects on Kondo behavior in CePt_{2+x} .” *Physica B* **378-380**, 778 (2006). doi: 10.1016/j.physb.2006.01.479. LBNL-60611
- [86] C. H. Booth, A. D. Christianson, J. M. Lawrence, L. D. Pham, J. C. Lashley, F. R. Drymiotis, “Ytterbium divalency and lattice disorder in near-zero thermal expansion YbGaGe .” *Phys. Rev. B* **75**, 12301 (2007). doi: 10.1103/PhysRevB.75.012301. LBNL-60117
- [87] C. H. Booth, M. Daniel, R. E. Wilson, E. D. Bauer, J. N. Mitchell, N. O. Moreno, L. A. Morales, J. L. Sarrao, P. G. Allen, “Self-irradiation and 5f localization in PuCoGa_5 .” In *Proceedings of Pu Futures: The Science, Monterey California, July 9-13, 2006*. *J. Alloys and Compd.*, **44**, 119 (2007). doi: 10.1016/j.jallcom.2006.09.135. LBNL-60659
- [88] L. Downward, C. H. Booth, W. W. Lukens, F. Bridges, “A variation of the F-test for determining statistical relevance for particular parameters in EXAFS analysis.” In *X-Ray Absorption Fine Structure – XAFS13: 13th International Conference, July 9-13, 2006*. *AIP Conference Proceedings* **882**, 129 (2007). LBNL-62566
- [89] C. H. Booth, M. Daniel, R. E. Wilson, E. D. Bauer, J. N. Mitchell, N. O. Moreno, L. A. Morales, J. L. Sarrao, P. G. Allen, “Quantifying structural damage from self-irradiation in a plutonium superconductor.” *Phys. Rev. B* **76**, 064530 (2007). doi: 10.1103/PhysRevB.76.064530. LBNL-61766
- [90] Y. Y. Chen, P. H. Huang, M. N. Ou, C. R. Wang, Y. D. Yao, T. K. Lee, M. Y. Ho, J. M. Lawrence, and C. H. Booth, “Kondo interactions and magnetic correlations in CePt_2 nanocrystals.” *Phys. Rev. Lett.*, **98**, 157206 (2007). doi: 10.1103/PhysRevLett.98.157206. LBNL-62116
- [91] G. B. Jin, E. S. Choi, R. P. Guertin, J. S. Brooks, T. H. Bray, C. H. Booth, and T. E. Albrecht-Schmitt, “Syntheses, structure, magnetism, and optical properties of the ordered mixed-lanthanide sulfides $\gamma\text{-Ln}_2\text{Ln}'\text{S}_3$ ($\text{Ln} = \text{La}, \text{Ce}; \text{Ln}' = \text{Er}, \text{Tm}, \text{Yb}$).” *Chem. Mater.* **19**, 567 (2007). doi: 10.1021/cm062349c. LBNL-62121
- [92] A. Ashley, G. Balazs, A. Cowley, J. Green, C. H. Booth, D. O’Hare, “Bis(permethylpentalene)cerium – another ambiguity in lanthanide oxidation state.” *Chem. Commun.*, 1515 (2007). doi: 10.1039/b700303j. LBNL-62339
- [93] A. L. Lima, X. Zhang, A. Misra, C. H. Booth, E. D. Bauer, and M. F. Hundley, “Length scale effects on the electronic transport properties of nanometric Cu/Nb multilayers.” *Thin Solid Films* **515**, 3574-3579 (2007). doi: 10.1016/j.tsf.2006.11.004. LBNL-62632
- [94] A. Feltz, P. Schmidt-Winkel, M. Schossmann, C. H. Booth, and J. Albering, “Remarkable Strontium B-site occupancy in Ferroelectric $\text{Pb}(\text{Zr}_{1-x}\text{Ti}_x)\text{O}_3$ Solid Solutions Doped with cryolite-Type Strontium Niobates”, *J. Am. Ceram. Soc.* **90**, 3959 (2007). doi: 10.1111/j.1551-2916.2007.02027.x. LBNL-62633
- [95] G. B. Jin, E. S. Choi, R. P. Guertin, J. S. Brooks, C. H. Booth, and T. E. Albrecht-Schmitt, “Syntheses, structure, magnetism, and optical properties of lutetium-based interlanthanide selenides.” *Inorg. Chem.* **46**, 9213 (2007). doi: 10.1021/ic701012j. LBNL-28E
- [96] G. B. Jin, E. S. Choi, R. P. Guertin, J. S. Brooks, T. H. Bray, C. H. Booth, and T. E. Albrecht-Schmitt, “Syntheses, structure, magnetism, and optical properties of the interlanthanide sulfides $\delta\text{-Ln}_{2-x}\text{Lu}_x\text{S}_3$ ($\text{Ln} = \text{Ce}, \text{Pr}, \text{Nd}$)” *J. Solid State Chem.* **180**, 2129 (2007). doi: 10.1016/j.jssc.2007.04.008. LBNL-31E
- [97] G. B. Jin, E. S. Choi, R. P. Guertin, J. S. Brooks, T. H. Bray, C. H. Booth, and T. E. Albrecht-Schmitt, “Syntheses, structure, magnetism, and optical properties of the partial ordered quaternary interlanthanide

sulfides $\text{PrLnYb}_2\text{S}_6$ ($\text{Ln}=\text{Tb, Dy}$).” *J. Solid State Chem.* **180**, 2581 (2007). doi: 10.1016/j.jssc.2007.06.032. LBNL-30E

- [98] N. Mannella, C. H. Booth, A. Rosenthal, B. C. Sell, A. Nambu, S. Marchesini, B. S. Mun, S. H. Yang, M. Watanabe, K. Ibrahim, E. Arenholz, A. Young, J. Guo, Y. Tomioka, and C. S. Fadley, “Temperature-dependent evolution of the electronic and local atomic structure in the cubic colossal magnetoresistive manganite $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$.” *Phys. Rev. B* **77**, 125134 (2008). doi: 10.1103/PhysRevB.77.125134. LBNL-239E
- [99] G. Ehlers, E. Mamontov, M. Zamponi, A. Faraone, Y. Qiu, A. L. Cornelius, C. H. Booth, K. C. Kam, R. Le Toquin, A. K. Cheetham, and J. S. Gardner, “Frustrated spin correlations in diluted spin ice $\text{Ho}_{2-x}\text{La}_x\text{Ti}_2\text{O}_7$.” *J. Phys.: Condens. Matter* **20**, 235206 (2008). doi: 10.1088/0953-8984/20/23/235206. LBNL-620E
- [100] N. Sundaram, Y. Jiang, I.E. Anderson, D.P. Belanger, C. H. Booth, F. Bridges, J. N. Mitchell, Th. Proffen, and H. Zheng, “Local structure of $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$ determined from EXAFS and neutron pair distribution function studies.” *Phys. Rev. Lett.* **102**, 026401 (2009). doi: 10.1103/PhysRevLett.102.026401. LBNL-1508E
- [101] M. D. Walter, C. H. Booth, and R. A. Andersen, “Cerocene revisited: The electronic structure of and interconversion between $\text{Ce}_2(\text{C}_8\text{H}_8)_3$ and $\text{Ce}(\text{C}_8\text{H}_8)_2$.” *Organometallics* **28**, 698 (2009). doi: 10.1021/om7012327. LBNL-1502E
- [102] M. D. Walter, C. D. Sofield, C. H. Booth and R. A. Andersen, “Spin Equilibria in Monomeric Manganocenes: Solid State Magnetic and EXAFS Studies.” *Organometallics* **28**, 2005 (2009). LBNL-2149E
- [103] C. H. Booth, M. D. Walter, D. Kazhdan, Y.-J. Hu, W. W. Lukens, E.D. Bauer, L. Maron, O. Eisenstein, and R. A. Andersen, “Decamethyltytterbocene Complexes of Bipyridines and Diazabutadienes: Multiconfigurational Ground States and Open-shell Singlet Formation.” *J. Am. Chem. Soc.* **131**, 6480 (2009). doi: 10.1021/ja809624w. LBNL-2026E
- [104] C. H. Booth, E. D. Bauer, A. D. Bianchi, F. Ronning, J. D. Thompson, J. L. Sarrao, and Z. Fisk, “Local structure and site occupancy of Cd and Hg substitutions in CeTIn_5 ($T=\text{Co, Rh, Ir}$).” *Phys. Rev. B* **79**, 144519 (2009). doi: 10.1103/PhysRevB.79.144519. LBNL-2024E
- [105] C. H. Booth and Y.-J. Hu, “Confirmation of standard error analysis techniques applied to EXAFS using simulations.” In *X-Ray Absorption Fine Structure – XAFS14: 14th International Conference, July 26-31, 2009. J. Phys.: Conf. Ser.* **190**, 012028 (2009). LBNL-2888E
- [106] Y.-J. Hu and C. H. Booth, “Predetermining acceptable noise limits in EXAFS spectra in the limit of stochastic noise.” In *X-Ray Absorption Fine Structure – XAFS14: 14th International Conference, July 26-31, 2009. J. Phys.: Conf. Ser.* **190**, 012029 (2009). doi: 10.1088/1742-6596/190/1/012029. LBNL-2889E
- [107] C. H. Booth, E. D. Bauer, and J. N. Mitchell, “A moving target: responding to magnetic and structural disorder in lanthanide- and actinide-based superconductors.” *Actinides 2009, July 12-17, 2009, IOP Conf. Ser.: Mater. Sci. Eng.* **9**, 012087 (2010). doi: 10.1088/1757-899X/9/1/012087. LBNL-3526E.
- [108] E. J. Shelter, J. M. Veauthier, R. Wu, C. R. Graves, J. D. Thompson, E. D. Bauer, C. H. Booth, B. L. Scott, K. D. John, D. E. Morris, J. L. Kiplinger, “Comparative Study of f-Element Electronic Structure across a Series of Multimetallic Actinide and Lanthanoid-Actinide Complexes Possessing Redox-Active Bridging Ligands.” *Inorg. Chem.* **49**, 1995 (2010). doi: 10.1021/ic9024475. LBNL-3117E
- [109] Y.-J. Hu, L. K. Schwaiger, C. H. Booth, R. K. Kukkadapu, E. Cristiano, D. Kaplan, and H. Nitsche, “Molecular Interactions of Plutonium(VI) with Synthetic Manganese-Substituted Goethite”, *Radiochi. Acta* **98**, 655 (2010). doi: 10.1524/ract.2010.1766. LBNL-4201E
- [110] F. Bondino, E. Magnano, G. Panaccione, F. Offi, M. Malvestuto, F. Parmigiani, C. H. Booth, D. Singh, D. Mandrus, G. Paolicelli, L. Simonelli, and N. Mannella, “Electronic structure of $\text{CeFeAsO}_{1-x}\text{F}_x$ ($x=0, 0.11(2)$) compounds,” *Phys. Rev. B* **82**, 014529 (2010). doi: 10.1103/PhysRevB.82.014529. LBNL-4250E

- [111] Yu Jiang, C. H. Booth, P. H. Tobash, K. Gofryk, F. Ronning, E. D. Bauer, and J. D. Thompson, "Magnetic frustration effects in uranium intermetallics," In *International Conference on Strongly Correlated Electron Systems, June 27-July 2, 2010, Santa Fe*, *J. Phys.: Conf. Series* **273**, 012036 (2011). doi: 10.1088/1742-6596/273/1/012036. LBNL-5163E
- [112] C. H. Booth, E. D. Bauer, E. S. Bozin, S. J. L. Billinge, and M. D. Walter, "Pair-distribution function analysis of the structural valence transition in $\text{Cp}_2^*\text{Yb}(4,4'\text{-Me}_2\text{-bipy})$," In *International Conference on Strongly Correlated Electron Systems, June 27-July 2, 2010, Santa Fe*, *J. Phys.: Conf. Series* **273**, 012149 (2011). doi: 10.1088/1742-6596/273/1/012149. LBNL-5162E
- [113] C. H. Booth, D. Kazhdan, E. Werkema, M. D. Walter, W. W. Lukens, E. D. Bauer, Yung-Jin Hu, L. Maron, O. Eisenstein, M. Head-Gordon, and R. A. Andersen, "Intermediate-valence tautomerism in decamethyltytterbocene complexes of methyl-substituted bipyridines." *J. Am. Chem. Soc.* **132**, 17536 (2010). doi: 10.1021/ja106902s. LBNL-4249E
- [114] Yu Jiang, A. Huq, C. H. Booth, G. Ehlers, J. E. Greedan, J. S. Gardner, "Order and disorder in the local and long-range structure of the spin-glass pyrochlore, $\text{Tb}_2\text{Mo}_2\text{O}_7$." *J. Phys.: Condens. Matter* **23**, 164214 (2011). doi: 10.1088/0953-8984/23/16/164214. LBNL-5161E
- [115] P. H. Tobash, Yu Jiang, F. Ronning, C. H. Booth, J. D. Thompson, B. L. Scott, and E. D. Bauer, "Synthesis, Structure, and Physical Properties of $\text{YbNi}_3\text{Al}_{9.23}$." *J. Phys.: Condens. Matter* **23**, 086002 (2011). DOI: 10.1088/0953-8984/23/8/086002. doi: 10.1088/0953-8984/23/8/086002. LBNL-5160E
- [116] G. B. Jin, E. S. Choi, C. H. Booth, T. Albrecht-Schmitt, "Syntheses, Structure, Magnetism, and Optical Properties of the Ordered Interlanthanide Copper Chalcogenides $\text{Ln}_2\text{YbCuQ}_5$ ($\text{Ln} = \text{La}, \text{Ce}, \text{Pr}, \text{Nd}, \text{Sm}; \text{Q} = \text{S}, \text{Se}$): Evidence for Unusual Magnetic Ordering in $\text{Sm}_2\text{YbCuS}_5$." *Chemistry of Materials* **23**, 1306 (2011). doi: 10.1021/cm103347u. LBNL-5158E
- [117] C. H. Booth, T. Durakiewicz, C. Capan, D. Hurt, A. D. Bianchi, J.J. Joyce, and Z. Fisk, "Electronic structure and f-orbital occupancy in Yb-substituted CeCoIn_5 ." *Phys. Rev. B* **83**, 235117 (2011). DOI: 10.1103/PhysRevB.83.235117. LBNL-5211E
- [118] T. Klimczuk, C. H. Wang, J. M. Lawrence, Q. Xu, T. Durakiewicz, F. Ronning, A. Llobet, F. Trouw, N. Kurita, Y. Tokiwa, H. O. Lee, C. H. Booth, J. S. Gardner, E. D. Bauer, J. J. Joyce, H. W. Zandbergen, R. Movshovich, R. J. Cava, J. D. Thompson, "Crystal fields, disorder, and antiferromagnetic short-range order in $\text{Yb}_{0.24}\text{Sn}_{0.76}\text{Ru}$." *Phys. Rev. B* **84**, 075152 (2011). doi: 10.1103/PhysRevB.84.075152. LBNL-5159E
- [119] S. A. Wang, J. Diwu, A. Simonetti, C. H. Booth, T. E. Albrecht-Schmitt, "Interstitial Incorporation of Plutonium into a Low-Dimensional Potassium Borate." *Environ. Sci. Tech.* **45**, 9457-9463 (2011). doi: 10.1021/es2028247. LNBL-5768E
- [120] C. H. Booth, Yu Jiang, D. L. Wang, J. N. Mitchell, P. H. Tobash, E. D. Bauer, M. A. Wall, P. G. Allen, D. Sokaras, D. Nordlund, T.-C. Weng, M. A. Torrez, and J. L. Sarrao, "Multiconfigurational Nature of 5f Orbitals in Uranium and Plutonium Intermetallics." *PNAS* **109**, 10205 (2012). doi: 10.1073/pnas.1200725109. LBNL-6297E
- [121] H. B. Rhee, F. Ronning, J. X. Zhu, E. D. Bauer, J. N. Mitchell, P. H. Tobash, B. L. Scott, J. D. Thompson, Yu Jiang, C. H. Booth, and W. E. Pickett, "PuPt₂In₇: A computational and experimental investigation." *Phys. Rev. B* **86**, 115137 (2012). doi: 10.1103/PhysRevB.86.115137. LBNL-6441E
- [122] W. W. Lukens, N. Magnani, C. H. Booth, "Application of the Hubbard Model to $\text{Cp}_2^*\text{Yb}(\text{bipy})$, a Model System for Strong Exchange Coupling in Lanthanide Systems." *Inorg. Chem.* **51**, 10105 (2012). doi: 10.1021/ic300037q. (?)

- [123] Actinides and Nuclear Energy Materials, ed. D. Andersson, C. H. Booth, P. C. Burns, R. Caciuffo, R. Devanathan, T. Durakiewicz, M. Stan, V. Tikare, S. W. Yu, [MRS Symposium Proceedings Vol. 1444 \(2012\)](#).
- [124] G. Nocton, C. H. Booth, L. Maron, R. A. Andersen, “Thermal dihydrogen elimination from $\text{Cp}^*_2\text{Yb}(4,5\text{-diazafluorene})$.” *Organometallics* **32**, 1150 (2012). doi:10.1021/om300876b. LBNL-6439E
- [125] J. R. Robinson, C. H. Booth, P. J. Carroll, J. M. Kikkawa, P. J. Walsh, E. J. Schelter. “Dimeric Rare Earth BINOLate Complexes: Activation of 1,4-Benzoquinone through Lewis-Acid Promoted Potential Shifts.” *Chem.-Eur. J.* **19**, 5996 (2013). doi: 10.1002/chem.201300026. LBNL-6430E
- [126] J. N. Cross, P. M. Duncan, E. M. Villa, M. J. Polinski, J.-M. Babo, E. V. Alekseev, C. H. Booth, T. E. Albrecht-Schmitt, “From Yellow to Black: Dramatic changes between Ce(IV) and Pu(IV) Molybdates.” *J. Am. Chem. Soc.* **135**, 2769 (2013). doi: 10.1021/ja311910h. LBNL-6431E
- [127] C. H. Booth, Yu Jiang, S. A. Medling, D. L. Wang, J. N. Mitchell, E. D. Bauer, S. K. McCall, M. A. Wall, P. G. Allen, “Self-irradiation damage to the local structure in plutonium and plutonium intermetallics.” *J. Appl. Phys.* **113**, 093502 (2013). doi: 10.1063/1.4794016. LBNL-6440E
- [128] A. M. Durand, D. P. Belanger, C. H. Booth, F. Ye, S. Chi, J. A. Fernandez-Baca, and M. Bhat, “Magnetic and structural phase transitions in LaCoO_3 .” *J. Phys.: Condens. Matter* **25**, 382203 (2013). doi: 10.1088/0953-8984/25/38/382203. LBNL-6685E
- [129] J. A. Bogart, A. J. Lewis, S. A. Medling, P. J. Carroll, C. H. Booth, E. J. Schelter, “Homoleptic Ce(III) and Ce(IV) nitroxide complexes: Extreme stabilization of the 4+ oxidation state.” *Inorg. Chem.* **52**, 11600 (2013). doi: 10.1021/ic401974t. LBNL-6702E
- [130] G. Nocton, C. H. Booth, L. Maron, R. A. Andersen, “The influence of the Torsion Angle in 3,3'-Dimethyl,2,2'-bipyridine on the Intermediate Valence in $(\text{C}_5\text{Me}_5)_2\text{Yb}(3,3'\text{-Me}_2\text{-bipy})$.” *Organometallics* **32**, 5305 (2013). doi: 10.1021/om400528d. LBNL-6698E
- [131] J. R. Robinson, Z. Gordon, C. H. Booth, P. J. Carroll, P. J. Walsh, E. J. Schelter, “Tuning Reactivity and Electronic Properties through Ligand Reorganization within a Cerium Heterobimetallic Framework.” *J. Am. Chem. Soc.* **135**, 19016 (2013). doi: 10.1021/ja410688w. LBNL-6687E
- [132] C. H. Booth, S. A. Medling, Yu Jiang, E. D. Bauer, P. H. Tobash, J. N. Mitchell, D. K. Veirs, M. A. Wall, P. G. Allen, J. J. Kas, D. Sokaras, D. Nordlund, T.-C. Weng, “Delocalization and occupancy effects of 5f orbitals in plutonium intermetallics using L_3 -edge resonant X-ray emission spectroscopy.” *J. Elect. Spec. Rel. Phen.* **194**, 57 (2014). doi: 10.1016/j.elspec.2014.03.004. LBNL-6699E
- [133] V. R. Fanelli, J. M. Lawrence, E. A. Goremychkin, R. Osborn, E. D. Bauer, K. J. McClellan, J. D. Thompson, C. H. Booth, A. D. Christianson, and P. S. Riseborough, “Q-dependence of the spin fluctuations in the intermediate valence compound CePd_3 .” *J. Phys.: Condens. Matter* **26**, 225602 (2014). doi: 10.1088/0953-8984/26/22/225602. LBNL-6689E
- [134] G. Nocton, W. W. Lukens, C. H. Booth, S. Rozenel, S. A. Medling, L. Maron, R. A. Andersen, “Reversible Sigma C-C Bond Formation Between Phenanthroline Ligands Activated by $(\text{C}_5\text{Me}_5)_2\text{Yb}$.” *J. Am. Chem. Soc.* **136**, 8626 (2014). doi: 10.1021/ja502271q. LBNL-6686E
- [135] G. Nocton, C. H. Booth, L. Maron, L. Ricard, R. A. Andersen, “Carbon-Hydrogen Bond Breaking and Making in the Open-Shell Singlet Molecule $\text{Cp}^*_2\text{Yb}(4,7\text{-Me}_2\text{phen})$.” *Organometallics* **33**, 6819 (2014). doi: 10.1021/om500843z.
- [136] J. A. Bogart, A. J. Lewis, M. A. Boreen, H. B. Lee, S. A. Medling, P. J. Carroll, C. H. Booth, E. J. Schelter, “A Ligand Field Series for the 4f-Block from Experimental and DFT Computed Ce(IV/III) Electrochemical Potentials.” Submitted.

- [137] A. Durand, D. Belanger, T. Hamil, F. Ye, S. Chi, J. Fernandez-Baca, C. H. Booth, Y. Adbollahian, M. Bhat, “The unusual magnetism of nanoparticle LaCoO₃.” Submitted.
- [138] A. Durand, T. Hamil, D. Belanger, S. Chi, F. Ye, J. Fernandez-Baca, Y. Adbollahian, C. H. Booth, “The effects of Co₃O₄ on the Structure and Unusual Magnetism of LaCoO₃.” Submitted.