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EDUCATION

1993 *Ph.D. in Physics*, Temple University, Philadelphia, Pennsylvania, USA
Thesis advisor: *Dr. Jack E. Crow* (deceased, founding Director of National High Magnetic Field Laboratory, Tallahassee, Florida)

ACADEMIC APPOINTMENTS

2016 - Present *Professor* Department of Physics, University of Colorado at Boulder
2011 - 2016 *Jack and Linda Gill Eminent Professor*, University of Kentucky
2008 - 2016 *Director* Center for Advanced Materials, Kentucky
2007 - 2016 *Professor* Department of Physics and Astronomy, University of Kentucky
2002 - 2007 *Associate Professor* Department of Physics and Astronomy, University of Kentucky
1998 - 2002 *Associate Scientist* National High Magnetic Field Laboratory, Tallahassee, Florida
1995 -1998 *Assistant Scientist* National High Magnetic Field Laboratory, Tallahassee, Florida
1993-1995 *Post-Doctoral Research Associate* National High Magnetic Field Laboratory, Tallahassee, Florida

RESEARCH INTERESTS

Discovery and study of novel quantum materials, especially *4d*- and *5d*-based transition metal materials; Single-crystal synthesis; Magnetic, transport and thermal properties of quantum materials, especially at extreme conditions of strong magnetic field, low temperature, and high pressure.

HONORS AND AWARDS

- *Fellow* of the American Physical Society, 2009
- *Albert D. & Elizabeth H. Kirwan Memorial Prize for Outstanding Contributions to Original Research or Creative Scholarship*, University of Kentucky, 2105
- *Jack and Linda Gill Eminent Professor*, University of Kentucky, 2011-2016
- *2009-2010 University Research Professor*, University of Kentucky

PUBLICATIONS AND INVITED TALKS

Author of more than **230** articles in refereed journals; more than **130** invited talks at international conferences, universities or national labs; **2** books (one published, the other to be published).

CITATIONS > 9900

h-index = 52

Link to Google Scholar: <https://scholar.google.com/citations?user=zdK0TLwAAAAJ&hl=en>

PATENTS

Provisional Patent Application No. 62/572, 303 (2017)

Title: *Electrical-Current Control of Structural and Physical Properties via Strong Spin-Orbit Interactions in Canted Antiferromagnetic Mott Insulators*

PUBLICATIONS (as of January 2019)

Books:

Published:

1. “*Frontiers of 4d- and 5d- Transition Metal Oxides*”, Gang Cao and Lance E. De Long, *World Scientific* ISBN: 978-981-4374-859 328 pp June 2013
<http://www.worldscientific.com/worldscibooks/10.1142/8331>

To Be Published:

2. “*Physics of Transition Metal Oxides*”, Gang Cao and Lance E. De Long, *Oxford University Press*; delivery date: September 2019.

Published Articles:

2019

1. “Direct detection of dimer orbitals in $\text{Ba}_5\text{AlIr}_2\text{O}_{11}$ ”, Y. Wang, Ruitang Wang, Jungho Kim, M. H. Upton, D. Casa, T. Gog, G. Cao, J. P. Hill, G. Kotliar, M. P. M. Dean, and X. Liu, *Phys. Rev. Lett.*, 201 (forthcoming)

2018

2. “Electrical Control of Structural and Physical Properties via Spin-Orbit Interactions in Sr_2IrO_4 ”, G. Cao, J. Terzic, H. D. Zhao, H. Zheng, L. E DeLong and Peter Riseborough, *Phys. Rev. Lett* **120**, 017201 (2018); DOI: <https://doi.org/10.1103/PhysRevLett.120.017201>; *Editor’s Suggestion*
3. *Invited Review*: “The Challenge of Spin-Orbit-Tuned Ground States in Iridates: A Key Issues Review”, Gang Cao and Pedro Schlottmann, *Reports on Progress in Physics*, **81** 042502 (2018), <https://doi.org/10.1088/1361-6633/aaa979>
4. “Observation of a pressure-induced transition from interlayer ferromagnetism to intralayer antiferromagnetism in $\text{Sr}_4\text{Ru}_3\text{O}_{10}$ ”, H. Zheng, W.H. Song, J. Terzic, H. D. Zhao, Y. Zhang, Y. F. Ni, L. E. DeLong, P. Schlottmann and G. Cao, *Phys. Rev. B* **98**, 064418 (2018); DOI: <https://doi.org/10.1103/PhysRevB.98.064418>; *Editor’s Suggestion*
5. “Electronic and optical properties of La-doped $\text{Sr}_3\text{Ir}_2\text{O}_7$ epitaxial thin-films”, M. Souri, J. Terzic, J. M. Johnson, J. G. Connell,¹ J. H. Gruenewald,¹ J. Thompson, J. W. Brill, J. Hwang, G. Cao, A. Seo, *Phys. Rev. Materials* **2**, 024803 (2018)
6. “Magnetic reversal in $\text{Sr}_4\text{Ru}_3\text{O}_{10}$ nanosheets probed by anisotropic magnetoresistance”, Yan Liu, Weiwei Chu, Jiyong Yang, Guoqiang Liu, Haifeng Du, Wei Ning, Langsheng Ling, Wei Tong, Zhe Qu, Gang Cao, Zhuan Xu, and Mingliang Tian, *Phys. Rev. B* **98**, 024425 (2018) DOI: [10.1103/PhysRevB.98.024425](https://doi.org/10.1103/PhysRevB.98.024425)
7. “Pressure-induced insulator-metal transition in $\text{Ca}_2\text{Ru}_{0.92}\text{Fe}_{0.08}\text{O}_4$ investigated by infrared microspectroscopy”, S.H. Park, M.S. Kim, G. Cao, K.I. Kim, B.N. Chae, J.S. Lee, *Current*

Applied Physics **18**, 40 (2018)

8. “Honeycomb lattice Na_2IrO_3 at high pressures: A robust spin-orbit Mott insulator”, Xiaoxiang Xi, Xiangyan Bo, X. S. Xu, P. P. Kong, Z. Liu, X. G. Hong, C. Q. Jin, G. Cao, Xiangang Wan, and G. L. Carr, *Phys. Rev. B* **98**, 125117 (2018); DOI: [10.1103/PhysRevB.98.125117](https://doi.org/10.1103/PhysRevB.98.125117)
9. “Exploring the energy landscape of resistive switching in antiferromagnetic $\text{Sr}_3\text{Ir}_2\text{O}_7$ ”, Morgan Williamson, Shida Shen, Cheng Wang, Gang Cao, Jianshi Zhou, John B. Goodenough, Maxim Tsoi, *Phys. Rev. B* **97**, 134431 (2018) DOI: [10.1103/PhysRevB.97.134431](https://doi.org/10.1103/PhysRevB.97.134431)
10. “Anisotropic antiferromagnetic order in spin-orbit coupled trigonal lattice $\text{Ca}_2\text{Sr}_2\text{IrO}_6$ ”, Jieming Sheng, Feng Ye, Christina Ho mann, Valentino R. Cooper, Satoshi Okamoto, Jasminka Terzic, Hao Zheng, Hengdi Zhao and G. Cao, *Phys. Rev. B* **97**, 235116 (2018) [10.1103/PhysRevB.97.235116](https://doi.org/10.1103/PhysRevB.97.235116)
11. Decoupling of magnetism and electric transport in single-crystal $(\text{Sr}_{1-x}\text{A}_x)_2\text{IrO}_4$ ($\text{A} = \text{Ca}$ or Ba), H. D. Zhao, J. Terzic, H. Zheng, Y. F. Ni, Y. Zhang, Feng Ye and P. Schlottmann and G. Cao, *J. Phys.: Condens. Matter* <https://doi.org/10.1088/1361-648X/aac23d> (2018)

2017

12. “New evidence for a magnetic state in double-perovskite iridates with $\text{Ir}^{5+}(5d^4)$ ions”, J. Terzic, H. Zhang, Feng Ye, P. Schlottmann, H. D. Zhao, L. DeLong, S. J. Yuan and G. Cao, *Phys. Rev. B* **96**, 064436 (2017); DOI: [10.1103/PhysRevB.96.064436](https://doi.org/10.1103/PhysRevB.96.064436)
13. “Optical signatures of spin-orbit exciton in bandwidth-controlled Sr_2IrO_4 epitaxial films via high-concentration Ca and Ba doping”, M. Souri, B. H. Kim, J. H. Gruenewald, J. G. Connell, J. Thompson, J. Nichols, J. Terzic, B. I. Min, G. Cao, J. W. Brill, and A. Seo, *Phys. Rev. B* **95**, 235125 (2017)
14. “Pressure-induced insulator-metal transition in $\text{Ca}_2\text{Ru}_{0.92}\text{Fe}_{0.08}\text{O}_4$ investigated by infrared microspectroscopy”, S. H. Park, M. S. Kim, G. Cao, K. I. Kim, B. N. Chea, and J. S. Lee, *Current Applied Physics* **18**, 40 (2017)
15. “Electron Doping Evolution of Magnetic Excitations and Spin-Orbit Excitons in $(\text{Sr}_{1-x}\text{La}_x)_3\text{Ir}_2\text{O}_7$ ”, Xingye Lu, D. E. McNally, M. Moretti Sala, J. Terzic, M. H. Upton, D. Casa, G. Cao, and T. Schmitt, *Phys. Rev. Lett.* **118**, 027202 (2017)
16. “Giant Spin Gap and Magnon Localization in a Disordered Heisenberg Antiferromagnet $\text{Sr}_2\text{Ir}_{1-x}\text{Ru}_x\text{O}_4$ ”, Yue Cao, Xuerong Liu, Wenhui Xu, Weiguo Yin, Derek Meyers, Jungho Kim, Diego Casa, Mary Upton, Thomas Gog, Tom Berlijn, Gonzalo Alvarez, Shujuan Yuan, Jasminka Terzic, John M. Tranquada, John P. Hill, Gang Cao, Robert M. Konik, and M. P. M. Dean, *Phys. Rev. B.* **95** 121103 (2017)
17. “Charge partitioning and anomalous hole doping in Rh-doped Sr_2IrO_4 ”, S. Chikara, G. Fabbris, J. Terzic, G. Cao, D. Khomskii, and D. Haskel, *Phys. Rev. B Rapid Comm.* **95**, 060407 (R)

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18. “Predicted electronic markers for polytypes of LaOBiS₂ examined via angular resolved photoemission spectroscopy”, Xiaoqing Zhou, Qihang Liu, J. A. Waugh, Haoxiang Li, T. Nummy, Xiuwen Zhang, Xiangde Zhu, Gang Cao, Alex Zunger and D. S. Dessau, *Phys. Rev. B* **95**, 075118 (2017)
19. “In-plane magnetic anisotropy of the Sr₄Ru₃O₁₀ nanosheet probed by planar Hall effect”, Yan Liu, Jiyong Yang, Weiwei Chu, Haifeng Du, Wei Ning, Langsheng Ling, Wei Tong, Zhe Qu, Gang Cao, Yuheng Zhang, and Mingliang Tian, *Appl. Phys. Lett.* **111**, 033103 (2017)
20. “Determination of Hund's coupling in 5d oxides using resonant inelastic x-ray scattering”, Bo Yuan, J. P. Clancy, A. M. Cook, C. M. Thompson, J. Greedan, G. Cao, B. C. Jeon, T. W. Noh, M. H. Upton, D. Casa, T. Gog, A. Paramakanti, and Young-June Kim, *Phys. Rev. B* **95**, 235114 (2017)
21. “Suppression of magnetism in Ba₅AlIr₂O₁₁: interplay of Hund's coupling, molecular orbitals and spin-orbit interaction”, Sergey V. Streltsov, Gang Cao, and Daniel I. Khomskii, *Phys. Rev. B* **95**, 014434 (2017)
22. Non-destructive reversible resistive switching in Cr doped Mott insulator Ca₂RuO₄: Interface vs bulk effects, Shida Shen, Morgan Williamson, Gang Cao, Jianshi Zhou, John Goodenough, Maxim Tsoi, *J. of App. Phys.* **122**, 245108 (2017)
23. *Ferro-Lattice-Distortions and Charge Fluctuations in Superconducting LaO_{1-x}F_xBiS₂*
Anushika Athauda, Christina Hoffmann, Saicharan Aswartham, Jasminka Terzic, Gang Cao, Xiangde Zhu, Yang Ren, and Despina Louca, *Journal of the Physical Society of Japan* **86**, 054701 (2017)

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24. “Simultaneous Metal-Insulator and Antiferromagnetic Transitions in Orthorhombic Perovskite Iridate Sr_{0.94}Ir_{0.78}O_{2.68} Single Crystals”, H. Zheng, J. Terzic, Feng Ye, X.G. Wan, D. Wang, Jinchun Wang, Xiaoping Wang, P. Schlottmann, S. J. Yuan and G. Cao, *Phys. Rev. B* **93**, 235157 (2016)
25. “Electrically tunable transport and high-frequency dynamics in antiferromagnetic Sr₃Ir₂O₇”, Heidi Seinige, Morgan Williamson, Shida Shen, Cheng Wang, Gang Cao, Jianshi-S. Zhou, John B. Goodenough, Maxim Tsoi, *Phys. Rev. B* **94**, 214434 (2016)
26. “Anisotropic softening of magnetic excitations in lightly electron doped Sr₂IrO₄”, X. Liu, M. P. M. Dean, Z. Y. Meng, M. H. Upton, T. Qi, T. Gog, H. Ding, G. Cao, and J. P. Hill, *Phys. Rev. B* **93**, 241102(R) (2016)
27. “Hallmarks of the Mott-Metal Crossover in the Hole Doped J=1/2 Mott insulator Sr₂IrO₄”, Yue Cao, Qiang Wang, Justin A. Waugh, Theodore Reber, Haoxiang Li, Xiaoqing Zhou, Stephen Parham, Nicholas Plumb, Eli Rotenberg, Aaron Bostwick, Jonathan Denlinger, Tongfei Qi, K.

Orenta, Michael Hermele, G. Cao and Daniel S. Dessau, *Nature Comm.*, 2016
doi:10.1038/ncomms11367

28. “X-ray Absorption Spectroscopy Study of the Effect of Rh doping in Sr_2IrO_4 ”, C. H. Sohn, Deok-Yong Cho, C. T. Kuo, L. J. Sandilands, T. F. Qi, G. Cao & T. W. Noh, *Scientific Reports* **6**, 23856 (2016)
29. “Observation of metallic surface states in the strongly correlated Kitaev-Heisenberg candidate Na_2IrO_3 ”, Nasser Alidoust, Chang Liu, Su-Yang Xu, Ilya Belopolski, Tongfei Qi, Minggang Zeng, Daniel S. Sanchez, Hao Zheng, Guang Bian, Madhab Neupane, Yu-Tzu Liu, Stephen D. Wilson, Hsin Lin, Arun Bansil, Gang Cao, and M. Zahid Hasan, *Phys. Rev. B* **93**, 245132 (2016)
30. “Investigations of metastable Ca_2IrO_4 epitaxial thin-films: systematic comparison with Sr_2IrO_4 and Ba_2IrO_4 ”, M. Souri, J. H. Gruenewald, J. Terzic, J. W. Brill, G. Cao & S. S. A. Seo, *Scientific Report* **6**, 25967 (2016)
31. “Engineering One-Dimensional Quantum Stripes from Superlattices of Two-Dimensional Layered Materials”, S. S. A. Seo, J. Nichols, J. Hwang, J. H. Gruenewald, M. Souri, J. Thompson, J. G. Connell, J. Terzic, and G. Cao, *Advanced Materials*, 2016
32. “Ground state tuning by spin-orbit and lattice degrees of freedom in hexagonal $\text{BaIr}_{1-x}\text{Ru}_x\text{O}_3$ ($0 \leq x \leq 1$)”, S. J. Yuan, K. Butrouna, J. Terzic, S. Aswartham, L. E. DeLong, P. Schlottmann and G. Cao, *Phys. Rev. B* **93**, 165136 (2016)
33. “Pressure-Induced Confined Metal from the Mott Insulator $\text{Sr}_3\text{Ir}_2\text{O}_7$ ”, Yang Ding, Cheng-Chien Chen, Heung-Sik Kim, Myung Joon Han, Zhenxing Feng, Mary Upton, Jungho Kim, Diego Casa, Ayman Said, Yufeng Peng, G. Cao, Thomas Gog, Ho-kwang Mao, and Michel van Veenendaal, *Phys. Rev. Lett.* **116**, 216402 (2016)
34. “Isotropic and Anisotropic Field-Dependent Regimes of the Spin-Wave Excitations in Sr_2IrO_4 : Raman Scattering Studies”, Y. Gim, A. Sethi, J.F. Mitchell, G. Cao, and S. L. Cooper, *Phys. Rev. B* **93**, 024405 (2016)
35. “Size effect on the magnetic phase in $\text{Sr}_4\text{Ru}_3\text{O}_{10}$ ”, Yan Liu, Jiyong Yang, Weike Wang, Haifeng Du, Wei Ning, Langsheng Ling, Wei Tong, ZheQu, Zhaorong Yang, Mingliang Tian, Gang Cao and Yuheng Zhang, *New J. Phys.* **18** 053019 (2016)
36. “Epitaxial Ba_2IrO_4 thin-films grown on SrTiO_3 substrates by pulsed laser deposition”, J. Nichols, O. B. Korneta, J. Terzic, G. Cao, J. W. Brill, and S. S. A. Seo, *Applied Physics Letters* **104**, 121913 (2014)
37. “Selective growth of an epitaxial Sr_2IrO_4 phase by pulsed laser deposition”, S. S. A. Seo, J. Nichols, J. Hwang, J. H. Gruenewald, M. Souri, J. Thompson, J. G. Connell, J. Terzic, and G. Cao, *Appl. Phys. Lett.* **109**, 201901 (2016)

2015

38. “Evidence of an odd-parity hidden order in a strongly spin-orbit coupled correlated iridates”, L. Zhao, D. H. Torchinsky, H. Chu, V. Ivanov, R. Lifshitz, R. Flint, T. Qi, G. Cao and D. Hsieh, *Nature Physics*, 2015 doi:10.1038/nphys3517
39. “Anomalous High-Energy Waterfall-Like Electronic Structure in 5d Transition Metal Oxide Sr_2IrO_4 with a Strong Spin-Orbit Coupling”, Yan Liu, Li Yu, Xiaowen Jia, Jianzhou Zhao, Hongming Weng, Yingying Peng, Chaoyu Chen, Zhuojin Xie, Daixiang Mou, Junfeng He, Xu Liu, Ya Feng, Hemian Yi, Lin Zhao, Guodong Liu, Shaolong He, Xiaoli Dong, Jun Zhang, Zuyan Xu, Chuangtian Chen, Gang Cao, Xi Dai, Zhong Fang & X. J. Zhou, *Scientific Reports* **5**, 13036 (2015)
40. “Crystal and Magnetic Structures in Square Lattice Iridate $\text{Sr}_2\text{Ir}_{1-x}\text{Rh}_x\text{O}_4$ ”, Feng Ye, Xiaoping Wang, Christina Hoffmann, Songxue Chi, Masaaki Matsuda, Bryan C. Chakoumakos, Jaime A. Fernandez-Baca, Jinchun Wang and G. Cao, *Phys. Rev. B*, **92** 201112(R) (2015)
41. “Decoupling of the Antiferromagnetic and Insulating States in Tb doped Sr_2IrO_4 ”, J. C. Wang, S. Aswartham, F. Ye, J. Terzic, H. Zheng, Daniel Haske, Shalinee Chikara, Yong Choi, P. Schlottmann, S. J. Yuan¹ and G. Cao, *Phys. Rev. B* **92**, 214411 (2015)
42. “From $J_{\text{eff}}=1/2$ insulator to p-wave superconductor in single-crystal $\text{Sr}_2\text{Ir}_{1-x}\text{Ru}_x\text{O}_4$ ($0 \leq x \leq 1$)”, S. J. Yuan, S. Aswartham, J. Terzic, H. Zheng, H. D. Zhao, P. Schlottmann and G. Cao, *Phys. Rev. B* **92**, 245103 (2015)
43. “A structural distortion induced magneto-elastic locking in Sr_2IrO_4 revealed through nonlinear optical harmonic generation”, D. H. Torchinsky, H. Chu, L. Zhao, N. B. Perkins, Y. Sizyuk, T. Qi, G. Cao, and D. Hsieh, *Phys. Rev. Lett.* **114**, 096404 (2015)
44. “Coexisting charge and magnetic orders in the dimer-chain iridate $\text{Ba}_5\text{AlIr}_2\text{O}_{11}$ ”, J. Terzic, J. C. Wang, Feng Ye, W. H. Song, S. J. Yuan, S. Aswartham, L. E. DeLong, S.V. Streltsov, D.I. Khomskii and G. Cao, *Phys. Rev. B* **91**, 235147 (2015)
45. “ $\text{Sr}_2\text{Ir}_{1-x}\text{Rh}_x\text{O}_4$ ($x < 0.5$): an inhomogeneous $J_{\text{eff}}=1/2$ Hubbard system”, Shalinee Chikara Daniel Haske, Jae-Hoon Sim, Heung-Sik Kim, Cheng-Chien Chen, G. Fabbris, L. S. I. Veiga, N. M. Souza-Neto, J. Terzic, K. Butrouna, G. Cao, Myung Joon Han, and Michel van Veenendaal, *Phys. Rev. B* **92**, 081114(R) (2015)
46. “Electrically Tunable Transport in the Antiferromagnetic Mott Insulator Sr_2IrO_4 ”, C. Wang, H. Seinige, G. Cao, J.-S. Zhou, J. B. Goodenough, M. Tsoi, *Phys. Rev. B* **92**, 115136 (2015)
47. “Evolution of Magnetism in Single-Crystal $\text{Ca}_2\text{Ru}_{1-x}\text{Ir}_x\text{O}_4$ ($0 \leq x \leq 0.65$)”, S. J. Yuan, J. Terzic, J. C. Wang, S. Aswartham, W. H. Song, F. Ye, and G. Cao, *Phys. Rev. B* **92**, 024425 (2015)
48. “Confinement-Deconfinement Transition as an Indication of Spin-Liquid-Type Behavior in Na_2IrO_3 ”, Zhanybek Alpichshev, Fahad Mahmood, G. Cao, and Nuh Gedik, *Phys. Rev. Lett.* **114**, 017203 (2015)

49. “High-energy electronic excitations in Sr_2IrO_4 observed by Raman scattering”, Jih-An Yang, Yi-Ping Huang, Michael Hermele, Tongfei Qi, Gang Cao, and Dmitry Reznik, *Phys. Rev. B* **91**, 195140 (2015)
50. “Experimental Electronic Structure of the Metallic Pyrochlore Iridate $\text{Bi}_2\text{Ir}_2\text{O}_7$ ”, Q. Wang, Y. Cao, X. Wan, J. D. Denlinger, T. F. Qi, O. B. Korneta, G. Cao, and D. S. Dessau, *J Phys. Condensed Matter* **27** 015502 (2015)

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51. “Novel magnetism of Ir^{5+} ($5d^4$) ions in the double perovskite Sr_2YIrO_6 ”, G. Cao, T. F. Qi, L. Li, J. Terzic, S. J. Yuan, L. E. DeLong, G. Murthy and R. K. Kaul, *Phys. Rev. Lett.* **112**, 056402 (2014)
52. “Lattice-Tuned Magnetism of Ru^{4+} ($4d^4$) Ions in Single-Crystals of the Layered Honeycomb Ruthenates: Li_2RuO_3 and Na_2RuO_3 ”, J. C. Wang, J. Terzic, T. F. Qi, Feng Ye, S. J. Yuan, S. Aswartham, S. V. Streltsov, D. I. Khomskii, R. K. Kaul and G. Cao, *Phys. Rev. B* **90** 161110 (R) (2014)
53. “Tuning Magnetic Coupling in Sr_2IrO_4 Thin Films with Epitaxial Strain”, A. Lupascu, J. P. Clancy, H. Gretarsson, Zixin Nie, J. Nichols, J. Terzic, G. Cao, S. S. A. Seo, Z. Islam, M. H. Upton, Jungho Kim, D. Casa, T. Gog, A. H. Said, Vamshi M. Katukuri, H. Stoll, L. Hozoi, J. van den Brink, and Young-June Kim, *Phys. Rev. Lett.* **112**, 147201 (2014)
54. “Orbital-Dependent Polaron Formation in Relativistic Mott Insulator Sr_2IrO_4 ”, C. H. Sohn, Min-Cheol Lee, Hyun-Ju Park, Kyung Ju Noh, H. K. Yoo, S. J. Moon, K. W. Kim, T. F. Qi, G. Cao, Deok-Yong Cho, and T. W. Noh, *Phys. Rev. B* **90** 041105(R) (2014)
55. “Different response of transport and magnetic properties of BaIrO_3 to chemical and physical pressure”, M. A. Laguna-Marco, G. Fabbris, N. M. Souza-Neto, S. Chikara, J. S. Schilling, G. Cao, and D. Haskel, *Phys. Rev. B* **90** 014419 (2014)
56. “Anisotropic Magnetoresistance in Antiferromagnetic Sr_2IrO_4 ”, C. Wang, H. Seinige, G. Cao, J.-S. Zhou, J. B. Goodenough, M. Tsoi, *Phys. Rev. X* **4**, 041034 (2014)
57. “Local density of states study of a spin-orbit-coupling induced Mott insulator Sr_2IrO_4 ”, Jixia Dai, Eduardo Calleja, G. Cao, and Kyle McElroy, *Phys. Rev. B* **90**, 041102(R) (2014)
58. “A Low Temperature Nonlinear Optical Rotational Anisotropy Spectrometer for the Determination of Crystallographic and Electronic Symmetries”, Darius H. Torchinsky, Hao Chu, Tongfei Qi, Gang Cao, and David Hsieh, *Review of Scientific Instruments* **85**, 015408 (2014)
59. “Dilute Magnetism and Spin-Orbital Percolation Effects in $\text{Sr}_2\text{Ir}_{1-x}\text{Rh}_x\text{O}_4$ ”, J.P. Clancy, A. Lupascu, H. Gretarsson, Z. Islam, Y. F. Hu, D. Casa, C.S. Nelson, S.C. LaMarra, G. Cao, and Young-June Kim, *Phys. Rev. B* **89**, 054409 (2014)

60. “Epitaxial Ba₂IrO₄ thin-films grown on SrTiO₃ substrates by pulsed laser deposition”, J. Nichols, O. B. Korneta, J. Terzic, G. Cao, J. W. Brill, and S. S. A. Seo, *Applied Physics Letters* **104**, 121913 (2014)
61. "Pressure induced second-order structural transition in Sr₃Ir₂O₇, Zhao Zhao, Shibing Wang, Tongfei Qi, Qiaoshi Zeng, Shigeto Hirai, Panpan, Kong, L. Li, C. Park, S. J. Yuan, Changqing Jin, G. Cao and Wendy Mao, *J. Physics: Condensed Matter* **26**, 121913 (2014)
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63. “Evolution of Magnetism in Single-Crystal Honeycomb Iridates”, G. Cao, T. F. Qi, L. Li, J. Terzic, V. S. Cao, S. J. Yuan, M. Tovar, G. Murthy, and R. K. Kaul, *Phys. Rev B* **88** 220414 (R) (2013)
64. “Ferromagnetic Anisotropy from Antiferromagnetic Superexchange in the Mixed 3d – 5d Transition-Metal Compound Sr₃CuIrO₆”, Wei-Guo Yin, X. Liu, A. M. Tsvetlik, M. P. M. Dean, M. H. Upton, Jungho Kim, D. Casa, A. Said, T. Gog, T. F. Qi, G. Cao, and J. P. Hill, *Phys. Rev. Lett.* **111**, 057202 (2013)
65. “Anisotropic electronic properties of a-axis-oriented Sr₂IrO₄ epitaxial thin-films”, J. Nichols, O. B. Korneta, J. Terzic, L. E. De Long, G. Cao, J. W. Brill, and S. S. A. Seo, *App. Phys. Lett.* **102**, 141908 (2013)
66. “Tuning J_{eff}= 1/2 Insulating State via Electron Doping and Pressure in Double-Layered Iridate Sr₃Ir₂O₇”, L. Li, P. P. Kong, T. F. Qi, C. Q. Jin, S. J. Yuan, L. E. DeLong, P. Schlottmann and G. Cao, *Phys. Rev. B* **87**, 235127 (2013)
67. “Giant vertical magnetization shift induced by spin canting in a Co/Ca₂(Ru_{0.98}Fe_{0.02})O₄ heterostructure”, S. J. Yuan, L. Li, T. F. Qi, L. D. DeLong and G. Cao, *Phys. Rev. B* **88**, 024413 (2013). Selected as *Editors Suggestion*
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