Curriculum vitae

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Gender: Male
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Research Interest:

Organic-inorganic hybrid photovoltaic cells, High performance organic transistors, Functional organic field-effect transistors (such as memory device, and detector), graphene-based sensors.

Education:

2001-2005 B.S. Faculty of Chemistry, Hebei Normal University.
2005-2010 Ph.D in Physical Chemistry, Institute of Chemistry, Chinese Academy of Sciences (Professor Yunqi Liu, Professor Gui Yu).

Research and Professional Experience

2010.07 Assistant Professor, Organic Solids Laboratory, Institute of Chemistry, Chinese Academy of Sciences (ICCAS).

2013.07 Associate Professor, Organic Solids Laboratory, ICCAS.

2013.10 Postdoctoral researcher, Department of Chemistry, The University of Tokyo (Professor Eiichi Nakamura)

2016.04 Project Associate Professor, Department of Chemistry, The University of Tokyo

Awards

2007 Jiangyin technology Innovation Fellowship, ICCAS.
2007 Institute Director Fellowship, Third Prize, ICCAS.
2007 Yongling Liu President Award of CAS.
2008 Young Scientist Award, ICCAS,

2008 Institute Director Fellowship, First Prize, ICCAS.
2008 Ningbo Dacheng Fellowship, ICCAS.
2009 Excellent Students Awards of CAS, CAS.
2009 Excellent Oral Awards of Doctoral Forum of China (Chemistry & Material).
2009 Hangzhou Taida Fellowship, First Prize, ICCAS.
2009 Institute Director Fellowship, First Prize, ICCAS.
2009 Young Excellent Scientist Award, ICCAS.
2010 Top of the Excellent Students Awards of CAS.
2011 President Award of CAS.
2012 Youth Innovation Promotion Association, CAS, Fellowship.

Publications

1. Original Paper

101. Polymer Stabilization of Lead(II) Perovskite Cubic Nanocrystals for Semitransparent Solar Cells, Y. Guo, K. Shoyama, W. Sato and E. Nakamura, *Adv. Energy Mater.,* **6**, 1502317, (2016).

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98. Air-Stable and Solution-Processable Perovskite Photodetectors for Solar-Blind UV and Visible Light, Y. Guo, C. Liu, H. Tanaka and E. Nakamura, *J. Phys. Chem. Lett.*, **6**, 535–539 (2015).

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95. "Regioselective Deposition" Method to Pattern Silver Electrodes Facilely and Efficiently with High Resolution: Towards All‑Solution‑Processed, High-Performance, Bottom-Contacted, Flexible, Polymer-Based Electronics, D. Ji, L. Jiang, Y. Guo, H. Dong, J. Wang, H. Chen, Q. Meng, X. Fu, G. Tian, D. Wu, G. Yu, Y. Liu and W. Hu, *Adv. Funct. Mater.,* **24**, 3783-3789 (2014).

94. Flexible, Low-Voltage and High-Performance Polymer Thin-Film Transistors and Their Application in Photo/Thermal Detectors, X. Liu, Y. Guo, Y. Ma, H. Chen, Z. Mao, H. Wang, G. Yu and Y. Liu, *Adv. Mater.,* **26**, 3631–3636 (2014).

93. Self-Aligned Single-Crystal Graphene Grains, D. Geng, B. Luo, J. Xu, Y. Guo, B. Wu, W. Hu, Y. Liu and G. Yu, *Adv. Funct. Mater.*, **24**, 1664-1670 (2014).

92. Near-Equilibrium Chemical Vapor Deposition of High-Quality Single-Crystal Graphene Directly on Various Dielectric Substrates, J. Chen, Y. Guo, L. Jiang, Z. Xu, L. Huang, Y. Xue, D. Geng, B. Wu, W. Hu, G. Yu and Y. Liu, *Adv. Mater.,* **26**, 1348-1353 (2014).

91. Mobility of Long-Lived Fullerene Radical in Solid State and Nonlinear Temperature Dependence, Y. Abe, H. Tanaka, Y. Guo, Y. Matsuo and E. Nakamura, *J. Am. Chem. Soc.,* **136**, 3366-3369 (2014).

90. Tuning the light response of organic field-effect transistors using fluorographene nanosheets as an interface modification layer, L. Wang, X. Xie, W. Zhang, J. Zhang, M. Zhu, Y. Guo, P. Chen, M. Liu and G. Yu, *J. Mater. Chem. C,* **2**, 6484-6490 (2014).

89. Enhancement in the efficiency of an organic–inorganic hybrid solar cell with a doped P3HT hole-transporting layer on a void-free perovskite active layer, Y. Guo, C. Liu, K. Inoue, K. Harano, H. Tanaka and E. Nakamura, *J. Mater. Chem. A*, **34,** 13827-13830 (2014).

88. One-pot microbial method to synthesize dual-doped graphene and its use as high-performance electrocatalyst, P. Guo, F. Xiao, Q. Liu, H. Liu, Y. Guo, J. Gong, S. Wang and Y. Liu, *Scientific reports,* **3**, 3499 (2013).

87. High-mobility, air stable bottom-contact n-channel thin film transistors based on N, N′-ditridecyl perylenediimide, L. Ma, Y. Guo, Y. Wen, Y. Liu and X. Zhan, *Appl. Phys. Lett.,* **103**, 203303 (2013).

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85. Naphthalenediimide-based copolymers incorporating vinyl-linkages for high-performance ambipolar field-effect transistors and complementary-like inverters under air, H. Chen, Y. Guo, Z. Mao, G. Yu, J. Huang, Y. Zhao and Y. Liu, *Chem. Mater.,* **25**, 3589-3596 (2013).

84. The synthesis of 2, 6-dialkylphenyldithieno [3, 2-b: 2′, 3′-d] thiophene derivatives and their applications in organic field-effect transistors, M. Zhu, H. Luo, L. Wang, Y. Guo, W Zhang, Y Liu and G Yu, *Dyes and Pigments,* **98**, 17-24 (2013).

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79. Perylene diimide copolymers with dithienothiophene and dithienopyrrole: Use in n-channel and ambipolar field-effect transistors, S. Zhang, Y. Wen, W. Zhou, Y. Guo, L. Ma, X. Zhao, Z. Zhao, S. Barlow, S. Marder, Y. Liu and X. Zhan, *J. Poly. Sci. Part A: Poly. Chem.,* **51**, 1550-1558 (2013).

78. Extended π-conjugated molecules derived from naphthalene diimides toward organic emissive and semiconducting materials, Y. Li, G. Zhang, G. Yang, Y. Guo, C. Di, X. Chen, Z. Liu, H. Liu, Z. Xu, W. Xu, H. Fu and D. Zhang, *J. Org. Chem.,* **78,** 2926-2934 (2013).

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65. Diketopyrrolopyrrole-based π-conjugated copolymer containing β-unsubstituted quintetthiophene unit: a promising material exhibiting high hole-mobility for organic thin-film transistors, Z. Yi, X. Sun, Y. Zhao, Y. Guo, X. Chen, J. Qin, G. Yu and Y. Liu, *Chem. Mater.*, **24**, 4350-4356 (2012).

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60. Production of graphite chloride and bromide using microwave sparks, J. Zheng, H. Liu, B. Wu, C. Di, Y. Guo, T. Wu, G. Yu, Y. Liu and D. Zhu, *Sci. Rep.* **2,** 662 (2012).

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52. Inkjet Printing High-Resolution, Large-Area Graphene Patterns by Coffee-Ring Lithography, L. Zhang, H. Liu, Y. Zhao, X. Sun, Y. Wen, Y. Guo, X. Gao, C. Di, G. Yu and Y. Liu, *Adv. Mater.*, **24**, 436-440 (2012).

51. An expedient synthesis of fused heteroacenes bearing a pyrrolo [3, 2-b] pyrrole core, L. Qiu, C. Yu, N. Zhao, W. Chen, Y. Guo, X. Wan, R. Yang and Y. Liu, *Chem. Commun.*, **48**, 12225-12227 (2012).

50. A simple nickel bis (dithiolene) complex as an excellent n-type molecular semiconductor for field-effect transistors, L. Qu, Y. Guo, H. Luo, C. Zhong, G. Yu, Y. Liu and J. Qin, *Chem. Commun.*, **48**, 9965-9967 (2012).

49. Phenanthro [1, 10, 9, 8-cdefg] carbazole-containing copolymer for high performance thin-film transistors and polymer solar cells, H. Chen, C. He, G. Yu, Y. Zhao, J. Huang, M. Zhu, H. Liu, Y. Guo, Y. Li and Y. Liu, *J. Mater. Chem.*, **22**, 3696-3698 (2012).

48. New tetrathiafulvalene fused-naphthalene diimides for solution-processible and air-stable p-type and ambipolar organic semiconductors, L. Tan, Y. Guo, Y. Yang, G. Zhang, D. Zhang, G. Yu, W. Xu and Y. Liu, *Chem. Sci.* **3**, 2530-2541 (2012).

47. Synthesis of large-area, few-layer graphene on iron foil by chemical vapor deposition, Y .Xue, B. Wu, Y. Guo, L. Huang, L. Jiang, J. Chen, D. Geng, Y. Liu, W. Hu and G. Yu, *Nano Res.* **4**, 1208-1214 (2011).

46. Synthesis and Characterization of Novel Semiconductors Based on Thieno [3, 2-b][1] benzothiophene Cores and Their Applications in the Organic Thin-Film Transistors, H. Chen, Q. Cui, G. Yu, Y. Guo, J. Huang, M. Zhu, X. Guo and Y. Liu, *J. Phys. Chem. C,* **115**, 23984-23991 (2011).

45. Electrical assembly and reduction of graphene oxide in a single solution step for use in flexible sensors, Y. Guo, B. Wu, H. Liu, Y. Ma, Y. Yang, J. Zheng, G. Yu and Y. Liu, *Adv. Mater.,* **23**, 4626-4630 (2011).

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36. New air-stable solution-processed organic n-type semiconductors based on sulfur-rich core-expanded naphthalene diimides, L. Tan, Y. Guo, G. Zhang, Y. Yang, D. Zhang, G. Yu, W. Xu and Y. Liu, *J. Mater. Chem.* **21**, 18042-18048 (2011).

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19. Improvements in Stability and Performance of N, N′-Dialkyl Perylene Diimide-Based n-Type Thin-Film Transistors, Y. Wen, Y. Liu, C. Di, Y. Wang, X. Sun, Y. Guo, J. Zheng, W. Wu, S. Ye and G. Yu, *Adv. Mater.,* **21**, 1631-1635 (2009).

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