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| 主要学术成就 | <p>博士，教授（破格），省杰青，省优青，博士生导师，省教学团队负责人，国家自然科学基金评审专家。入选斯坦福大学评选的世界前10万科学家榜单。先后主持国家自然科学基金面上项目、安徽省杰出青年基金、国家自然科学基金青年基金、安徽省高校优秀青年基金、安徽省教育厅重大项目及其它省级项目十余项。参与国家973计划、国家863计划、国家自然科学基金及省级项目多项。指导的研究生毕业6人，有7人获得研究生国家奖学金，5人在中科大，复旦，武汉理工大学等著名研究机构攻读博士学位。在 <i>Solar RRL</i>, <i>Applied Catalysis B: Environmental</i>, <i>ACS Sustainable Chemistry & Engineering</i>, <i>ACS Applied Energy Materials</i>, <i>ACS Applied Nano Materials</i>, <i>Chemical Engineering Journal</i>, <i>Journal of Colloid and Interface Science</i>, <i>Electrochimica Acta</i> 等 SCI 期刊发表论文 100 余篇。ESI1% 热点论文 1 篇，ESI 高被引论文 13 篇。先后被 <i>Chemical Reviews</i>, <i>Chemical Society Reviews</i>, <i>Angewandte Chemie International Edition</i>, <i>Energy & Environmental Science</i>, <i>Advanced Materials</i>, <i>Applied Catalysis B: Environmental</i>, <i>Advanced functional materials</i>, <i>Nano Energy</i>, <i>ACS Nano</i>, <i>ACS Sustainable Chemistry & Engineering</i>, <i>Small</i>, <i>Solar RRL</i>, <i>Electrochimica Acta</i>, <i>Journal of Power Sources</i> 等 SCI 高影响因子学术期刊上同行正面评价和引用 3000 余次，H 影响因子 35。是 <i>JACS</i>, <i>Advanced Materials</i>, <i>Materials Today</i>, <i>Solar RRL</i>, <i>Applied Catalysis B: Environmental</i>, <i>Nanoscale</i>, <i>Chemical Communication</i> 等国际期刊的长期审稿人。</p> <p>2021</p> <p>111、Xiaochun Ke,† Jinfeng Zhang,† Kai Dai*, Ke Fan,* Changhao Liang*, Integrated S-scheme heterojunction of amine-functionalized 1D CdSe nanorods anchoring on ultrathin 2D SnNb₂O₆ nanosheets for robust solar-driven CO₂ conversion, <i>Solar RRL</i>, 2021, 2000805</p> <p>110、Xiaofeng Li†, Jinfeng Zhang†, Yao Huo†, Kai Dai*, Suwen Li*, Shifu Chen*, Two-dimensional sulfur- and chlorine-codoped g-C₃N₄/CdSe-amine heterostructures</p> | | |

nanocomposite with effective interfacial charge transfer and mechanism insight, *Applied Catalysis B: Environmental*, 2021, 280, 119452 (IF:16.683)

109、 Yao Huo,[†] Jinfeng Zhang,[†] ***Kai Dai***^{*}, Changhao Liang^{*}, Amine Modified S-Scheme Porous g-C₃N₄/CdSe-Diethylenetriamine Composite with Enhanced Photocatalytic CO₂ Reduction Activity, *ACS Applied Energy Materials*, 2021, 4, 956-968

108、 Hui Yang, Jinfeng Zhang^{*}, ***Kai Dai***^{*}, Organic amine surface modified 1D CdSe_{0.8}S_{0.2}-DETA/2D SnNb₂O₆ S-scheme heterojunction with promoted visible-light-driven photocatalytic CO₂ reduction, *Chinese Journal of Catalysis*, 2021, accepted

107、 Xing Chen,[†] Xiaochun Ke,[†] Jinfeng Zhang, Changchun Yang, ***Kai Dai***^{*}, Changhao Liang^{*}, Insight into the synergy of amine-modified S-scheme Cd_{0.5}Zn_{0.5}Se/porous g-C₃N₄ and noble-metal-free Ni₂P for boosting photocatalytic hydrogen generation, *Ceramics International*, accepted

106、 Xing Chen[†], Taiping Hu,[†] Jinfeng Zhang, Changchun Yang, ***Kai Dai***^{*}, Chengsi Pan^{*}, Diethylenetriamine synergistic boosting photocatalytic performance with porous g-C₃N₄/CdS-diethylenetriamine 2D/2D S-scheme heterojunction, *Journal of Alloys and Compounds*, 2021, 863, 158068

105、 Lizhong Liu[†], Taiping Hu[†], ***Kai Dai***^{*}, Jinfeng Zhang^{*}, Changhao Liang^{*}, A novel step-scheme BiVO₄/Ag₃VO₄ photocatalyst for enhanced photocatalytic degradation activity under visible light irradiation, *Chinese Journal of Catalysis*, 2021, 42, 46–55

104、 Yao Huo[†], Jinfeng Zhang[†], Zhongliao Wang, ***Kai Dai***^{*}, Chengsi Pan^{*}, Changhao Liang^{*}, Efficient interfacial charge transfer of 2D/2D porous carbon nitride/bismuth oxychloride step-scheme heterojunction for boosted solar-driven CO₂ reduction, *Journal of Colloid and Interface Science*, 2021, 585, 684–693 DOI:10.1016/j.jcis.2020.10.048

103、 Xiaofeng Li[†], Taiping Hu[†], Jinfeng Zhang[†], ***Kai Dai***^{*}, Changhao Liang^{*}, Novel 2D SnNb₂O₆/Ag₃VO₄ S-scheme heterojunction with enhanced visible-light photocatalytic activity, *Ceramics International*, 2021, 47, 7169-7176

102、 Feifei Mei, Jinfeng Zhang, Changhao Liang, ***Kai Dai***^{*}, Fabrication of novel CoO/porous graphitic carbon nitride S-scheme heterojunction for efficient CO₂ photoreduction, *Materials Letters*, 2021, 282, 128722

2020

101、 Xudong Li, ***Kai Dai***^{*}, Chengsi Pan^{*}, Jinfeng Zhang^{*}, Diethylenetriamine-Functionalized CdS Nanoparticles Decorated on Cu₂S Snowflake Microparticles for Photocatalytic Hydrogen Production, *ACS Applied Nano Materials*, 2020, 3, 11517-11526 DOI: 10.1021/acsnm.0c02616

100、 Taiping Hu, ***Kai Dai***^{*}, Jinfeng Zhang^{*}, Shifu Chen^{*}, Noble-metal-free Ni₂P modified step-scheme SnNb₂O₆/CdS-diethylenetriamine for photocatalytic hydrogen production under broadband light irradiation, *Applied Catalysis B: Environmental*, 2020, 269, 118844 (IF:16.683)

99、 ***Kai Dai***^{*}, Taiping Hu, Jinfeng Zhang^{*}, Luhua Lu, Changhao Liang^{*}, Carbon nanotube exfoliated uniform porous reduced graphene oxide-supported CdS-diethylenetriamine composite for efficient photocatalytic H₂ production, *Applied Surface Science*, 2020, 512, 144783

98、 Xudong Li[†], Feifei Mei[†], Jinfeng Zhang^{*}, ***Kai Dai***^{*}, Changhao Liang, Noble-metal-free NiS decorated organic-inorganic hybrid Zn_xCd_{1-x}Se-diethylenetriamine solid solution for

hydrogen evolution, *Applied Surface Science*, 2020, 507, 145213

97、Feifei Mei, Zhen Li, ***Kai Dai***^{*}, Jinfeng Zhang^{*}, Changhao Liang^{*}, Step-scheme porous g-C₃N₄/Zn_{0.2}Cd_{0.8}S-DETA composites for efficient and stable photocatalytic H₂ production, *Chinese Journal of Catalysis*, 2020, 41: 41-49. (ESI1%高被引论文)

96、Hao Dong, Guangping Zhu, Min Zhang, ***Kai Dai***, Qiang Li, Chaopeng Cui, Efficiently visible and 2 μm infrared emission in K₂YbF₅: Ce³⁺/Ho³⁺ microcrystals, *Current Applied Physics*, 2020, 20, 765-772

95、Xiaofeng Li[†], Taiping Hu[†], ***Kai Dai***^{*}, Jinfeng Zhang^{*}, Construction of TiO₂ nanosheets with exposed {0 0 1} facets/Zn_{0.2}Cd_{0.8}S-DETA heterostructure with enhanced visible light hydrogen production, *Applied Surface Science*, 2020, 516, 146141.

94、Xiaochun Ke[†], Jinfeng Zhang[†], ***Kai Dai***^{*}, Changhao Liang^{*}, Construction of fluorinated-TiO₂ nanosheets with exposed {001} facets/CdSe-DETA nanojunction for enhancing visible-light-driven photocatalytic H₂ evolution, *Ceramics International*, 2020, 46: 866-876.

2019

93、Yao Huo[†], Jinfeng Zhang[†], ***Kai Dai***^{*}, Qiang Li, Jiali Lv, Guangping Zhu, Changhao Liang^{*}, All-solid-state artificial Z-scheme porous g-C₃N₄/Sn₂S₃-DETA heterostructure photocatalyst with enhanced performance in photocatalytic CO₂ reduction, *Applied Catalysis B: Environmental*, 2019, 241: 528-538(ESI1%热点论文, ESI1%高被引论文。IF:16.683)

92、Taiping Hu, ***Kai Dai***^{*}, Jinfeng Zhang, Guangping Zhu, Changhao Liang, One-pot synthesis of step-scheme Bi₂S₃/porous g-C₃N₄ heterostructure for enhanced photocatalytic performance, *Materials Letters*, 2019, 257: 126740

91、Taiping Hu[†], Zhen Li[†], Luhua Lu, ***Kai Dai***^{*}, Jinfeng Zhang^{*}, Rui Li, Changhao Liang^{*}, Inorganic-organic CdSe-diethylenetriamine nanobelts for enhanced visible photocatalytic hydrogen evolution, *Journal of Colloid and Interface Science*, 2019, 555: 166-173

90、Yao Huo[†], Zhen Li[†], Jinfeng Zhang[†], ***Kai Dai***^{*}, Changhao Liang^{*}, Yang Yang, Defect-Mediated Electron-Hole Separation on Inorganic-Organic CdS_xSe_{1-x}-DETA Solid Solution under Amine Molecule-Assisted Fabrication and Microwave-Assisted Method for Promoting Photocatalytic H₂ Evolution, *Sustainable Energy & Fuels*, 2019, 3(12): 3550-3560

89、Feifei Mei, Jinfeng Zhang^{*}, ***Kai Dai***^{*}, Wanyue Li, Changhao Liang^{*}, Construction of Ag SPR-promoted step-scheme porous g-C₃N₄/Ag₃VO₄ heterojunction for improving photocatalytic activity, *Applied Surface Science*, 2019, 488, 151-160

88、Xiaochun Ke, Jinfeng Zhang, ***Kai Dai***^{*}, Jiali Lv^{*}, Changhao Liang^{*}, Novel visible-light-driven direct Z-scheme Zn₃V₂O₈/Ag₃PO₄ heterojunctions for enhanced photocatalytic performance, *Journal of Alloys and Compounds*, 2019, 799, 113-123.

87、Jiali Lv, Zhenfei Tian, ***Kai Dai***^{*}, Yixing Ye, Changhao Liang^{*}, Interface and defect engineering in Pd/TiO₂ electrocatalyst: a green strategy to develop effective nitrogen fixation under ambient conditions, *Journal of Colloid and Interface Science*, 2019, 553, 126-135.

86、Taiping Hu, ***Kai Dai***^{*}, Jinfeng Zhang^{*}, Guangping Zhu, Changhao Liang^{*}, Noble-metal-free Ni₂P as cocatalyst decorated rapid microwave solvothermal synthesis of inorganic-organic CdS-DETA hybrids for enhanced photocatalytic hydrogen evolution, *Applied Surface Science*, 2019, 481, 1385-1393(ESI1%高被引论文)

85、Yao Huo[#], Yang Yang[#], ***Kai Dai***^{*}, Jinfeng Zhang^{*}, Construction of 2D/2D porous graphitic C₃N₄/SnS₂ composite as a direct Z-scheme system for efficient visible photocatalytic activity,

Applied Surface Science, 2019, 481, 1260-1269(ESI1%高被引论文)

84、Xiaochun Ke, Kai Dai*, Guangping Zhu, Jinfeng Zhang*, Changhao Liang*, In situ photochemical synthesis noble-metal-free NiS on CdS-diethylenetriamine nanosheets for boosting photocatalytic H₂ production activity, *Applied Surface Science*, 2019, 481, 669–677

83、Xiaochun Ke, Jinfeng Zhang, Guangping Zhu, Changhao Liang, Kai Dai*, Construction of direct Z-scheme WO₃(H₂O)_{0.333}/BiOI heterostructure with enhanced visible light photocatalytic performance, *Materials Letters*, 2019, 245, 57-60

82、Feifei Mei#, Jinfeng Zhang#, Kai Dai*, Guangping Zhu, Changhao Liang*, A Z-scheme Bi₂MoO₆/CdSe-diethylenetriamine heterojunction for enhancing photocatalytic hydrogen production activity under visible light, *Dalton Transactions*, 2019, 48, 1067-1074. (ESI1%高被引论文)

81、Zhen Li#, Yang Yang#, Kai Dai*, Jinfeng Zhang*, Luhua Lu*, Construction of defective Mo₁₅S₁₉/CdS-diethylenetriamine heterostructure photocatalyst for highly active and stable noble-metal-free photocatalytic hydrogen production, *Applied Surface Science*, 2019, 469, 505-513 (ESI 高被引)

80、Kai Dai*, Jiali Lv, Jinfeng Zhang, Qiang Li, Lei Geng, Changhao Liang, Controlled synthesis of novel 3D CdS hierarchical microtremella for photocatalytic H₂ production, *Materials Letters*, 2019, 235, 11-14

79、Kai Dai[†], Jiali Lv[†], Jinfeng Zhang*, Changhao Liang*, Guangping Zhu, Band structure engineering design of g-C₃N₄/ZnS/SnS₂ ternary heterojunction visible-light photocatalyst with ZnS as electron transport buffer material, *Journal of Alloys and Compounds*, 2019, 778, 215-223

78、Zhen Li, Xia Wang, Jinfeng Zhang*, Changhao Liang, Luhua Lu, Kai Dai*, Preparation of Z-scheme WO₃(H₂O)_{0.333}/Ag₃PO₄ composites with enhanced photocatalytic activity and durability, *Chinese Journal of Catalysis*, 2019, 40, 326–334

77、Qiang Li*, Jinfeng Zhang, Kai Dai, Hong Li, Min Zhang, Guangping Zhu, Maojun Zheng, In-situ synthesis of Au decorated InP nanopore arrays for enhanced photoelectrochemical hydrogen production, *Journal of Alloys and Compounds*, 2019, 774, 610-617

2018

76、Kai Dai*, Jiali Lv, Jinfeng Zhang, Guangping Zhu, Lei Geng, Changhao Liang*, Efficient visible-light-driven splitting of water into hydrogen over surface-fluorinated anatase TiO₂ nanosheets with exposed {001} facets/layered CdS-diethylenetriamine nanobelts, *ACS Sustainable Chemistry & Engineering*, 2018, 6 (10), 12817-12826

75、Zhao Zhang, Luhua Lu*, Zaozao Lv, Ying Chen, Hongyun Jin, Shuen Hou, Lixin Qiu, Limei Duan, Jinghai Liu*, Kai Dai, Porous carbon nitride with defect mediated interfacial oxidation for improving visible light photocatalytic hydrogen evolution, *Applied Catalysis B: Environmental*, 2018, 232, 384-390

74、Yanjie Si, Yijie Zhang, Luhua Lu*, Si Zhang, Ying Chen, Jinghai Liu*, Hongyun Jin, Shuen Hou, Kai Dai, Weiguo Song, Boosting visible light photocatalytic hydrogen evolution of graphitic carbon nitride via enhancing its interfacial redox activity with cobalt/nitrogen doped tubular graphitic carbon, *Applied Catalysis B: Environmental*, 2018, 225, 512-518(ESI 高被引)

73、Yao Huo, Zhongliao Wang, Jinfeng Zhang*, Changhao Liang, Kai Dai*, Ag SPR-promoted 2D porous g-C₃N₄/Ag₂MoO₄ composites for enhanced photocatalytic performance towards

methylene blue degradation, *Applied Surface Science*, 2018, 459, 271-280

72、Jinfeng Zhang, Junwei Fu, Zhongliao Wang, Bei Cheng*, ***Kai Dai****, Wingkei Ho*, Direct Z-scheme porous g-C₃N₄/BiOI heterojunction for enhanced visible-light photocatalytic activity, *Journal of Alloys and Compounds*, 2018, 766, 841-850

71、Qiang Li, Lei Geng*, Hong-Yan Lu, ***Kai Dai***, Wen-Dan Cheng, Crystal structures and characterizations of two new selenite chlorides: 1D Ba₂Zn(SeO₃)₂Cl₂ and 2D BaZn₂(SeO₃)₂Cl₂, *Journal of Solid State Chemistry*, 2018, 265, 117-122

70、Zhen Li[‡], Jinfeng Zhang[‡], Jiali Lv, Luhua Lu, Changhao Liang, ***Kai Dai****, Sustainable synthesis of CeO₂/CdS-diethylenetriamine composites for enhanced photocatalytic hydrogen evolution under visible light, *Journal of Alloys and Compounds*, 2018, 758, 162-170

69、Taiping Hu[‡], Pengfei Li[‡], Jinfeng Zhang*, Changhao Liang, ***Kai Dai****, Highly efficient direct Z-scheme WO₃/CdS-diethylenetriamine photocatalyst and its enhanced photocatalytic H₂ evolution under visible light irradiation, *Applied Surface Science*, 2018, 442, 20-29(ESI 高被引)

68、Jiali Lv[‡], Jinfeng Zhang[‡], Jun Liu, Zhen Li, ***Kai Dai****, Changhao Liang*, Bi SPR-promoted Z-scheme Bi₂MoO₆/CdS-diethylenetriamine composite with effectively enhanced visible light photocatalytic hydrogen evolution activity and stability, *ACS Sustainable Chemistry & Engineering*, 2018, 6 (1), 696-706 (ESI 高被引)

67、Taiping Hu[‡], Yang Yang[‡], ***Kai Dai****, Jinfeng Zhang*, Changhao Liang*, A novel Z-scheme Bi₂MoO₆/BiOBr photocatalyst for enhanced photocatalytic activity under visible light irradiation, *Applied Surface Science*, 2018, 456, 473-481

66、Jiali Lv[‡], Jun Liu[‡], Jinfeng Zhang[‡], ***Kai Dai****, Changhao Liang*, Zhongliao Wang, Guangping Zhu, Construction of organic-inorganic CdS/diethylenetriamine hybrids for efficient photocatalytic hydrogen production, *Journal of Colloid and Interface Science*, 2018, 512, 77-85

65、Jinfeng Zhang[‡], Jiali Lv[‡], ***Kai Dai****, Changhao Liang*, Qi Liu, One-step growth of nanosheet-assembled BiOCl/BiOBr microspheres for highly efficient visible photocatalytic performance, *Applied Surface Science*, 2018, 430, 639-646 (ESI 高被引)

64、Zhongliao Wang[‡], Jiali Lv[‡], Jinfeng Zhang*, ***Kai Dai****, Changhao Liang, Facile synthesis of Z-scheme BiVO₄/porous graphite carbon nitride heterojunction for enhanced visible-light-driven photocatalyst, *Applied Surface Science*, 2018, 430, 595-602 (ESI 高被引)

63、Jinfeng Zhang, Junwei Fu, Shifu Chen*, Jiali Lv, ***Kai Dai****, 1D carbon nanofibers@TiO₂ core-shell nanocomposites with enhanced photocatalytic activity toward CO₂ reduction, *Journal of Alloys and Compounds*, 2018, 746, 168-176.

62、Yijie Zhang, Luhua Lu*, Zhao Zhang, Zhu Shu, ***Kai Dai****, Jinghai Liu, Ying Chen, Hongyun Jin, Shuen Hou, Natural nanomaterial as hard template for scalable synthesizing holey carbon nanosheet/nanotube with in-plane and out-of-plane pores for electrochemical energy storage, *Chinese Chemical Letters*, 2018, 29, 641-644

2017

61、Zhongliao Wang, Taiping Hu, ***Kai Dai****, Jinfeng Zhang*, Changhao Liang, Constructing Z-scheme Ag₃PO₄/Bi₂WO₆ composite with excellent visible light photodegradation activity for the removal of organic contaminant, *Chinese Journal of Catalysis*, 2017, 38: 2021-2029

60、Zhongliao Wang, Yao Huo, Jinfeng Zhang*, Cheng Lu, ***Kai Dai****, Changhao Liang, Guangping Zhu, Facile preparation of two-dimensional Bi₂MoO₆@Ag₂MoO₄ core-shell composite with enhanced visible light photocatalytic activity, *Journal of Alloys and*

Compounds, 2017, 729, 100-108

59、 Jiali Lv,† Jinfeng Zhang,† ***Kai Dai****, Changhao Liang, * Guangping Zhu, Zhongliao Wang, Zhen Li, Controllable synthesis of inorganic-organic Zn_{1-x}Cd_xS-DETA solid solution nanoflowers and their enhanced visible-light photocatalytic hydrogen-production performance,

Dalton Transactions, 2017, 46, 11335-11343

58、 Zhen Li, ***Kai Dai****, Jinfeng Zhang, Changhao Liang, Guangping Zhu, Facile synthesis of novel octahedral Cu₂O/Ag₃PO₄ composite with enhanced visible light photocatalysis, *Materials Letters*, 2017, 206: 48-51

57、 Zhongliao Wang, ***Kai Dai****, Changhao Liang, Jinfeng Zhang, Guangping Zhu, Facile synthesis of novel butterfly-like Ag₂MoO₄ nanosheets for visible-light driven photocatalysis, *Materials Letters*, 2017, 196: 373-376

56、 Graham Dawson, Wei Chen, Luhua Lu, ***Kai Dai***, Morphology dependent adsorption of methylene blue on trititanate nanoplates and nanotubes prepared by the hydrothermal treatment of TiO₂, *Water Science and Technology*, 2017, 75: 350-357

55、 Jiali Lv, ***Kai Dai****, Jinfeng Zhang, Qi Liu*, Changhao Liang*, Guangping Zhu, Facile constructing novel 2D porous g-C₃N₄/BiOBr hybrid with enhanced visible-light-driven photocatalytic activity, *Separation and Purification Technology*, 2017, 178, 6-17

54、 Zhongliao Wang, Jinfeng Zhang*, Jiali Lv, ***Kai Dai****, Changhao Liang*, Plasmonic Ag₂MoO₄/AgBr/Ag composite: excellent photocatalytic performance and possible photocatalytic mechanism, *Applied Surface Science*, 2017, 396, 791-798

53、 Zhao Zhang, Yijie Zhang, Luhua Lu*, Yanjie Si, Si Zhang, Ying Chen, ***Kai Dai****, Ping Duan, Limei Duan, Jinghai Liu*, Graphitic carbon nitride nanosheet for photocatalytic hydrogen production: The impact of morphology and element composition, *Applied Surface Science*, 2017, 391, 369-375 (ESI 高被引)

52、 Jinfeng Zhang, Jiali Lv, ***Kai Dai****, Qi Liu*, Changhao Liang, Guangping Zhu, Facile and green synthesis of novel porous g-C₃N₄/Ag₃PO₄ composite with enhanced visible light photocatalysis, *Ceramics International*, 2017, 43, 1522-1529

51、 Jiali Lv, Dongpei Li, ***Kai Dai****, Changhao Liang *, Dequan Jiang, Luhua Lu, Guangping Zhu, Multi-walled carbon nanotube supported CdS-DETA nanocomposite for efficient visible light photocatalysis, *Materials Chemistry and Physics*, 2017, 186, 372-381

50、 Jiali Lv, ***Kai Dai****, Jinfeng Zhang, Luhua Lu*, Changhao Liang*, Lei Geng, Zhongliao Wang, Guangyu Yuan, Guangping Zhu, In situ controllable synthesis of novel surface plasmon resonance-enhanced Ag₂WO₄/Ag/Bi₂MoO₆ composite for enhanced and stable visible light photocatalyst, *Applied Surface Science*, 2017, 391, 507-515 (ESI 高被引)

2016

49、 Lei Geng*, Qiang Li, Hong Yan Lu, ***Kai Dai***, P Shiv Halasyamani, Sb-based Antiferromagnetic Oxychlorides: MSb₂O₃(OH)Cl (M=Mn, Fe, Co) with 2D Spin-Dimer Structures, *Dalton Transactions*, 2016, 45, 18183-18189

48、 Jiali Lv, ***Kai Dai****, Luhua Lu*, Lei Geng, Changhao Liang, Guangping Zhu, Cu/Ag/Ag₃PO₄ ternary composite: A hybrid alloy-semiconductor heterojunction structure with visible light photocatalytic properties, *Journal of Alloys and Compounds*, 2016, 682, 778-784

47、 ***Kai Dai***, Jiali Lv, Luhua Lu*, Changhao Liang, Lei Geng, Guangping Zhu, Large-scale synthesis of cobalt sulfide/carbon nanotube hybrid and its excellent electrochemical capacitance performance, *Materials Letters*, 2016, 176, 42-45

46、 ***Kai Dai****, Jiali Lv, Luhua Lu*, Changhao Liang, Lei Geng, Guangping Zhu, A facile fabrication of plasmonic g-C₃N₄/Ag₂WO₄/Ag ternary heterojunction visible-light photocatalyst, *Materials Chemistry and Physics*, 2016, 177, 529-537

45、 Zhongliao Wang, Jiali Lv, ***Kai Dai****, Luhua Lu, Changhao Liang, Lei Geng, Large scale and facile synthesis of novel Z-scheme Bi₂MoO₆/Ag₃PO₄ composite for enhanced visible light photocatalyst, *Materials Letters*, 2016, 169, 250-253

2015

44、 Lei Geng*, Qiang Li, Chang-Yu Meng, ***Kai Dai***, Hong-Yan Lu, Chen-Sheng Lin and Wen-Dan Cheng, BaBi(SeO₃)₂Cl: a new polar material showing high second-harmonic generation efficiency enhanced by constructive alignment of chloride ions, *Journal of Materials Chemistry C*, 2015, 3, 12290-12296

43、 Qinzhuang Liu, Bing Li, Hong Li, ***Kai Dai***, Guangping Zhu, Wei Wang, Yongxing Zhang,

Guanyin Gao, Jianming Dai, Composition dependence of structural and optical properties in epitaxial Sr(Sn_{1-x}Ti_x)O₃ films, *Japanese Journal of Applied Physics*, 2015, 54 (3): 031101 (4 pp.)

42、 **Kai Dai***, Dongpei Li, Lei Geng, Changhao Liang, Qiangchun Liu, Facile preparation of Bi₂MoO₆/multi-walled carbon nanotube nanocomposite for enhancing photocatalytic performance, *Materials Letters*, 2015, 160, 124-127

41、 Jiali Lv, **Kai Dai***, Jinfeng Zhang, Lei Geng, Changhao Liang*, Qiangchun Liu, Guangping Zhu, Chen Chen, Facile synthesis of Z-scheme graphitic-C₃N₄/Bi₂MoO₆ nanocomposite for enhanced visible photocatalytic properties, *Applied Surface Science*, 2015, 358, 377-384

40、 Qinzhuang Liu*, Jianming Dai, Hong Li, Bing Li, Yongxing Zhang, **Kai Dai**, San Chen, Optical and transport properties of Gd doped BaSnO₃ epitaxial films, *Journal of Alloys and Compounds*, 2015, 647: 959-964

39、 **Kai Dai**, Luhua Lu*, Changhao Liang*, Guangping Zhu, Qinzhuang Liu, Lei Geng, Junqi He, A high efficient graphitic-C₃N₄/BiOI/graphene oxide ternary nanocomposite heterostructured photocatalyst with graphene oxide as electron transport buffer material, *Dalton Transactions*, 2015, 44, 7903-7910

38、 Chang-Yu Meng, Lei Geng*, Wen-Ting Chen, Ming-Fang Wei, **Kai Dai**, Hong-Yan Lu, Wen-Dan Cheng, Syntheses, structures, and characterizations of a new second-order nonlinear optical Material: Pb₂(SeO₃)(NO₃)₂, *Journal of Alloys and Compounds*, 2015, 640, 39-44

37、 Lei Geng*, Chang-Yu Meng*, Miao-Miao Wang, **Kai Dai**, Chen-Sheng Lin, Wen-Dan Cheng, Synthesis and crystal structure of a novel layered barium antimonate Ba₂Sb₇O₁₃(OH) with mixed-valence antimony, *Solid State Sciences*, 2015, 44, 27-31

36、 Dongpei Li, **Kai Dai***, Jiali Lv, Luhua Lu, Changhao Liang, Guangping Zhu, Facile and large scale synthesis of novel Cu₂O octahedral crystals with efficient visible light photocatalytic activity, *Materials Letters*, 2015, 150, 48-51

35、 Yong-Xing Zhang, Xiang-Bo Zhou, Zhong-Liang Liu*, Qin-Zhuang Liu, Guang-Ping Zhu, **Kai Dai**, Bing Li, Bai 10Sun, Zhen Jin and Xuan-Hua Li*, Green synthesis of monodispersed LaCO₃OH microgears with novel plum blossom-like structure via a glycerol-mediated solvothermal method, *RSC Advances*, 2015, 5, 21925-21930

2014

34、 Xuan-Hua Li, Yong-Xing Zhang*, Zhong-Liang Liu, Qin-Zhuang Liu, Bing Li, Guang-Ping Zhu, **Kai Dai**, A facile and novel approach for preparing monodispersed hollow aluminosilica microspheres with thin shell structures, *RSC Advances*, 2014, 4, 62209-62214

33、 **Kai Dai**, Luhua Lu*, Changhao Liang, Guangping Zhu, Lei Geng, Advance ternary surface-fluorinated TiO₂ nanosheet/Ag₃PO₄/Ag composite photocatalyst with planar heterojunction and island Ag electron capture center, *RSC Advances*, 2014, 4, 62751-62758

32、 **Kai Dai***, Dongpei Li, Jiali lv, Luhua Lu, Changhao Liang, Guangping Zhu, A scalable synthesis technique of hierarchical BiOBr microspheres for advanced visible light photocatalyst *Materials Letters*, 2014, 136, 438-440

31、 **Kai Dai**, Dongpei Li, Luhua Lu*, Qi Liu, Changhao Liang*, Jiali Lv, Guangping Zhu, Plasmonic TiO₂/AgBr/Ag ternary composite nanosphere with heterojunction structure for advanced visible light photocatalyst, *Applied Surface Science*, 2014, 314, 864-871

30、 **Kai Dai**, Dongpei Li, Luhua Lu*, Qi Liu, Jiali Lv, Guangping Zhu, Facile synthesis of reduced graphene oxide/cobalt sulfide hybrid and its electrochemical capacitance performance,

RSC Advances, 2014, 4, 29216-29222

29、**Kai Dai**, Jiali Lv, Luhua Lu*, Qi Liu, Guangping Zhu, Dongpei Li, Synthesis of micro-nano heterostructure AgBr/ZnO composite for advanced visible light photocatalysis, *Materials Letters*, 2014, 130, 5-8

28、**Kai Dai**, Luhua Lu*, Changhao Liang, Qi Liu, Guangping Zhu, Heterojunction of Facet coupled g-C₃N₄/surface-fluorinated TiO₂ nanosheets for organic pollutants degradation under visible LED light irradiation, *Applied Catalysis B: Environmental*, 2014, 156-157, 331-340(ESI 高引)

27、**Kai Dai**, Luhua Lu*, Changhao Liang*, Jianming Dai, Qinzhuang Liu, Yongxing Zhang, Guangping Zhu, Zhongliang Liu, In situ assembly of MnO₂ nanowires/graphene oxide nanosheets composite with high specific capacitance, *Electrochimica Acta*, 2014, 116, 111-117

26、**Kai Dai**, Luhua Lu*, Qi Liu*, Guangping Zhu, Xiaoqin Wei, Jin Bai, Lingling Xuan and Heng Wang, Sonication assisted preparation of graphene oxide/graphitic-C₃N₄ nanosheet hybrid with reinforced photocurrent for photocatalyst applications, *Dalton Transactions*, 2014, 43, 6295-6299

25、**Kai Dai***, Luhua Lu*, Changhao Liang, Jianming Dai, Guangping Zhu, Zhongliang Liu, Qinzhuang Liu, Yongxing Zhang, Graphene oxide modified ZnO nanorods hybrid with high reusable photocatalytic activity under UV-LED irradiation, *Materials Chemistry and Physics*, 2014, 143, 1410-1416

24、**Kai Dai***, Changhao Liang*, Jianming Dai, Luhua Lu, Guangping Zhu, Zhongliang Liu, Qinzhuang Liu, Yongxing Zhang, High-yield synthesis of carbon nanotube-porous nickel oxide nanosheet hybrid and its electrochemical capacitance performance, *Materials Chemistry and Physics*, 2014, 143, 1344-1351

23、**Kai Dai**, Luhua Lu*, Qi Liu*, Guangping Zhu, Qinzhuang Liu and Zhongliang Liu, Graphene oxide capturing surface-fluorinated TiO₂ nanosheets for advanced photocatalysis and the reveal of synergism reinforce mechanism, *Dalton Transactions*, 2014, 43, 2202-2210

22、**Kai Dai***, Luhua Lu, Qi Liu*, Guangping Zhu, Qinzhuang Liu, A facile surfactant-free method to prepare Ti_{0.95}Er_{0.05}O₂ nanocrystal and its photocatalytic performance, *Catalysis Communications*, 2014, 43, 202-206

2013

21、**Kai Dai***, Luhua Lu*, Jun Dong, Ziyi Ji, Guangping Zhu, Qinzhuang Liu, Zhongliang Liu, Yongxing Zhang, Dongpei Li and Changhao Liang, Facile synthesis of surface plasmon resonance-enhanced Ag/AgBr heterostructure and its photocatalytic performance with 450 nm LED illumination, *Dalton Transactions*, 2013, 42, 4657-4662

20、**Kai Dai***, Zheng Chen, Luhua Lu*, Guangping Zhu, Zhongliang Liu, Qinzhuang Liu, Superhydrophilic zinc oxide film prepared by controlling ZnO microrods growth and its attractive recyclable photocatalytic performance, *Thin Solid Films*, 2013, 539, 23-28

19、**Kai Dai***, Luhua Lu, Graham Dawson, Development of UV-LED/TiO₂ device and their application for photocatalytic degradation of methylene blue, *Journal of Materials Engineering and Performance*, 2013, 22, 1035-1040

18、**Kai Dai**, Guangping Zhu*, Zhongliang Liu, Qinzhuang Liu, Zheng Chen, Graham Dawson, Luhua Lu*, Mass Production and Reusable Photocatalytic Activity of ZnS Microspheres, *Nanoscience and Nanotechnology Letters*, 2013, 5, 204-208

17、Qinzhuang Liu, Hong Li*, Bing Li, Qiangchun Liu, Guangping Zhu, **Kai Dai**, Zhongliang

Liu, Jianjun Liu, Jianming Dai, Rectifying property and magnetoresistance of manganite-stannate junctions, *Solid State Communications*, 2013, 173, 30-33

2012

16、**Kai Dai***, Luhua Lu, Guangping Zhu, Zhongliang Liu, Qinzhuang Liu, Zheng Chen, A scalable synthesis technique of novel AgBr microcrystal and its visible light photocatalytic performance, *Materials Letters*, 2012, 87, 94-96

15、**Kai Dai***, Graham Dawson*, Song Yang, Zheng Chen, Luhua Lu, Large scale preparing carbon nanotube/zinc oxide hybrid and its application for highly reusable photocatalyst, *Chemical Engineering Journal*, 2012, 191, 571-578

14、**Kai Dai***, Guangping Zhu, Zhongliang Liu, Qinzhuang Liu, Zheng Chen, Luhua Lu*, Facile Preparation and Growth Mechanism of zinc oxide nanopencils, *Materials Letters*, 2012, 67, 193-195

13、**Kai Dai***, Guangping Zhu, Luhua Lu, Graham Dawson, Easy and Large scale Synthesised Silver nanodendrite: Highly Effective Filler for Isotropic Conductive Adhesives, *Journal of Materials Engineering and Performance*, 2012, 21: 353-357

12、Qinzhuang Liu*, Jianjun Liu, Bing Li, Hong Li, Guangping Zhu, **Kai Dai**, Zhongliang Liu, Peng Zhang, and Jianming Dai, Composition dependent metal-semiconductor transition in transparent and conductive La-doped BaSnO₃ epitaxial films, *Applied Physics Letters*, 2012, 101, 241901

11、Qinzhuang Liu*, Bing Li, Jianjun Liu, Hong Li, Zhongliang Liu, **Kai Dai**, Guangping Zhu, Peng Zhang, Feng Chen, Jianming Dai, Structure and band gap tuning of transparent (Ba_{1-x}Sr_x)SnO₃ thin films epitaxially grown on MgO substrates, *EPL-EUROPHYS LETT*, 2012, 98, 47010

2011 及以前

10、**Kai Dai***, Liyi Shi, Dongsong Zhang, Jianhui Fang, NaCl adsorption in multi-walled carbon nanotube/active carbon combination electrode, *Chemical Engineering Science*, 2006, 61, 428-433

9、**Kai Dai***, Liyi Shi*, Jianhui Fang, Yunzhu Zhang, Synthesis of silver nanoparticles on functional multi-walled carbon nanotubes, *Materials Science & Engineering A*, 2007, 465, 283-286

8、**Kai Dai***, Liyi Shi, Jianhui Fang, Dongsong Zhang, Bingkun Yu, NaCl adsorption in multi-walled carbon nanotubes, *Materials Letters*, 2005, 59, 1989-1992

7、**Kai Dai**, Dongsong Zhang, Bingkun Yu, Jianhui Fang, Liyi Shi, Chemical treatment of carbon nanotubes as electrode in electrochemical double-layer capacitors, *J. Shanghai University*, 2005, 9: 557-560

6、Zheng Chen*, Dawson, G, Jinghai Liu, **Kai Dai**, Anatase nanocrystals with {103} and {112} facets by hydrothermal transformation of titanate nanotubes, *Micro and Nano letters*, 2011, 6, 675-677

5、Dongsong Zhang, Liyi Shi*, Jianhui Fang, **Kai Dai**, Xuanke Li, Preparation and desalination performance of multiwall carbon nanotubes, *Materials Chemistry and Physics*, 2006, 97, 415-419

4、Dongsong Zhang*, Liyi Shi, Jianhui Fang, **Kai Dai**, Influence of diameter of carbon nanotubes mounted in flow-through capacitors on removal of NaCl from salt water, *Journal of Materials Science*, 2006, 42, 2471-2475

| | |
|--|--|
| | <p>3、Dengsong Zhang*, Liyi Shi, Jianhui Fang, Kai Dai, Jiquan Liu, Influence of carbonization of hot-pressed carbon nanotube electrodes on removal of NaCl from saltwater solution, <i>Materials Chemistry and Physics</i>, 2006, 96,140-144</p> <p>2、Dengsong Zhang, Liyi Shi*, Jianhui Fang, Kai Dai, Removal of NaCl from saltwater solution using carbon nanotubes/activated carbon composite electrode, <i>Materials Letters</i>, 2006, 60, 360-363</p> <p>1、Dengsong Zhang, Liyi Shi*, Jianhui Fang, Kai Dai, Preparation and modification of carbon nanotubes, <i>Materials Letters</i>, 2005, 59, 4044-4047</p> <p>真诚欢迎材料、物理、化学及相近专业的本科生来本课题组攻读研究生。</p> |
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