

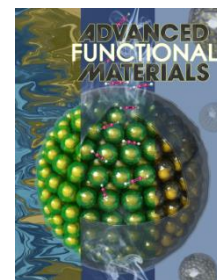
## Selection of ISEM publications 2014-2016

### 2016

1. T. Akhter, M. M. Islam, S. N. Faisal, E. Hague, A. I. Minett, H. K. Liu, K. Konstantinov, S. X. Dou, "Self-Assembled N/S Codoped Flexible Graphene Paper for High Performance Energy Storage and Oxygen Reduction Reaction", *ACS Applied Materials & Interfaces* **8** (3), 2078-2087 (2016); (IF: 7.145)
2. A. Al-Keisy, L. Ren, D. D. Cui, Z. F. Xu, X. Xu, X. D. Su, W. C. Hao, S. X. Dou, Y. Du, "A ferroelectric photocatalyst Ag<sub>10</sub>Si<sub>4</sub>O<sub>13</sub> with visible-light photooxidation properties", *Journal Of Materials Chemistry A* **4** (28) 10992-10999; (2016) (IF: 8.262)
3. Y. J. Cai, Y. D. Huang, W. Jia, X. C. Wang, Y. Guo, D. Z. Jia, Z. P. Sun, W. K. Pang, Z. P. Guo, "Super high-rate, long cycle life of europium-modified, carbon-coated, hierarchical mesoporous lithium-titanate anode materials for lithium ion batteries", *Journal Of Materials Chemistry A* **4** (25) 9949-9957; (2016) (IF: 8.262)
4. K. Z. Cao, L. F. Jiao, W. K. Pang, H. Q. Liu, T. F. Zhou, Z. P. Guo, Y. J. Wang, H. T. Yuan, "Na<sub>2</sub>Ti<sub>6</sub>O<sub>13</sub> Nanorods with Dominant Large Interlayer Spacing Exposed Facet for High-Performance Na-Ion Batteries", *Small* **12** (22) 2991-2997; (2016) (IF: 8.315)
5. D. Cardillo, M. Tehei, M. S. Hossain, M. M. Islam, K. Bogusz, D. Q. Shi, D. Mitchell, M. Lerch, A. Rosenfeld, S. Corde, K. Konstantinov, "Synthesis-Dependent Surface Defects and Morphology of Hematite Nanoparticles and Their Effect on Cytotoxicity in Vitro" *ACS Applied Materials & Interfaces* **8** (9) 5867-5876; (2016) (IF: 7.145)
6. C. J. Chen, W. K. Pang, T. Mori, V. K. Peterson, N. Sharma, P. H. Lee, S. H. Wu, C. C. Wang, Y. F. Song, R. S. Liu, "The Origin of Capacity Fade in the Li<sub>2</sub>MnO<sub>3</sub> center dot LiMO<sub>2</sub> (M = Li, Ni, Co, Mn) Microsphere Positive Electrode: An Operando Neutron Diffraction and Transmission X-ray Microscopy Study", *Journal Of The American Chemical Society* **138** (28) 8824-8833; (2016) (IF: 13.038)
7. C. J. Chen, H. H. Xu, T. F. Zhou, Z. P. Guo, L. N. Chen, M. Y. Yan, L. Q. Mai, P. Hu, S. J. Cheng, Y. H. Huang, J. Xie, "Integrated Intercalation-Based and Interfacial Sodium Storage in Graphene-Wrapped Porous Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub> Nanofibers Composite Aerogel" *Advanced Energy Materials* **6** (13) 1600322; (2016) (IF: 15.23)
8. Z. B. Chen, X. L. Wang, S. P. Ringer, X. Z. Liao, "Manipulation of Nanoscale Domain Switching Using an Electron Beam with Omnidirectional Electric Field Distribution", *Physical Review Letters* **117** (2) 027601; (2016) (IF: 7.645)
9. D. L. Cortie, T. Buck, M. H. Dehn, V. L. Karner, R. F. Kiefl, C. D. P. Levy, R. M. L. McFadden, G. D. Morris, I. McKenzie, M. R. Pearson, X. L. Wang, W. A. MacFarlane, "Beta-NMR Investigation of the Depth-Dependent Magnetic Properties of an Antiferromagnetic Surface", *Physical Review Letters* **116** (10) 106103; (2016) (IF: 7.645)
10. Y. H. Dou, J. T. Xu, B. Y. Ruan, Q. N. Liu, Y. D. Pan, Z. Q. Sun, S. X. Dou, "Atomic Layer-by-Layer Co<sub>3</sub>O<sub>4</sub>/Graphene Composite for High Performance Lithium-Ion Batteries", *Advanced Energy Materials* **6** (8); (2016) (IF: 15.23)
11. T. Han, M. S. Park, J. Kim, J. H. Kim, K. Kim, "The smallest quaternary ammonium salts with ether groups for high-performance electrochemical double layer capacitors", *Chemical Science* **7** (3) 1791-1796; (2016) (IF: 9.144)
12. C. Han, Q. Sun, Z. Li, S. X. Dou, "Thermoelectric Enhancement of Different Kinds of Metal Chalcogenides", *Advanced Energy Materials* **6** (15) 1600498 (2016); (IF: 15.23)
13. X. Jian, B. A. Wu, Y. F. Wei, S. X. Dou, X. L. Wang, W. D. He, N. Mahmood, "Facile Synthesis of Fe<sub>3</sub>O<sub>4</sub>/GCs Composites and Their Enhanced Microwave Absorption Properties", *ACS Applied Materials & Interfaces* **8** (9) 6101-6109; (2016) (IF: 7.145)
14. L. Jing, K. Shim, C. Y. Toe, T. Fang, C. Zhao, R. Amal, K. N. Sun, J. H. Kim, Y. H. Ng, "Electrospun Polyacrylonitrile-Ionic Liquid Nanofibers for Superior PM<sub>2.5</sub> Capture Capacity", *ACS Applied Materials & Interfaces* **8** (11) 7030-7036; (2016) (IF: 7.145)
15. K. J. Kim, H. S. Lee, J. Kim, M. S. Park, J. H. Kim, Y. J. Kim, M. Skyllas-Kazacos, "Superior Electrocatalytic Activity of a Robust Carbon-Felt Electrode with Oxygen-Rich Phosphate Groups for All-Vanadium Redox Flow Batteries", *ChemSuschem* **9** (11) 1329-1338; (2016) (IF: 7.116)
16. J. H. Lee, J. Kim, T. Y. Kim, M. S. Al Hossain, S. W. Kim, J. H. Kim, "All-in-one energy harvesting and storage devices", *Journal Of Materials Chemistry A* **4** (21) 7983-7999; (2016) (IF: 8.262)
17. W. J. Li, S. L. Chou, J. Z. Wang, H. K. Liu, S. X. Dou, "Significant enhancement of the cycling performance and rate capability of the P/C composite via chemical bonding (P-C)", *Journal Of Materials Chemistry A* **4** (2) 505-511; (2016) (IF: 8.262)
18. Y. Q. Li, C. L. Li, B. P. Bastakoti, J. Tang, B. Jiang, J. Kim, M. Shahabuddin, Y. Bando, J. H. Kim, Y. Yamauchi, "Strategic synthesis of mesoporous Pt-on-Pd bimetallic spheres templated from a polymeric micelle assembly", *Journal Of Materials Chemistry A* **4** (23) 9169-9176; (2016) (IF: 8.262)

19. D. Li, H. Q. Wang, H. K. Liu, Z. P. Guo, "A New Strategy for Achieving a High Performance Anode for Lithium Ion Batteries Encapsulating Germanium Nanoparticles in Carbon Nanoboxes", *Advanced Energy Materials* 6 (5) 1501666; (2016) (IF: 15.23)
20. Y. Y. Li, H. Y. Zhang, Y. M. Chen, Z. C. Shi, X. G. Cao, Z. P. Guo, P. K. Shen, "Nitrogen-Doped Carbon-Encapsulated SnO<sub>2</sub>@Sn Nanoparticles Uniformly Grafted on Three-Dimensional Graphene-like Networks as Anode for High-Performance Lithium-Ion Batteries", *ACS Applied Materials & Interfaces* 8 (1) 197-207; (2016) (IF: 7.145)
21. Y. Y. Li, H. Y. Zhang, S. X. Wang, Y. X. Lin, Y. M. Chen, Z. C. Shi, N. Li, W. G. Wang, Z. P. Guo, "Facile low-temperature synthesis of hematite quantum dots anchored on a three-dimensional ultra-porous graphene-like framework as advanced anode materials for asymmetric supercapacitors", *Journal Of Materials Chemistry A* 4 (29) 11247-11255; (2016) (IF: 8.262)
22. X. Lin, H. Q. Wang, H. W. Du, X. R. Xiong, B. Qu, Z. P. Guo, D. W. Chu, "Growth of Lithium Lanthanum Titanate Nanosheets and Their Application in Lithium-Ion Batteries", *ACS Applied Materials & Interfaces* 8 (2) 1486-1492; (2016) (IF: 7.145)
23. Y. W. Liu, X. M. Hua, C. Xiao, T. F. Zhou, P. C. Huang, Z. P. Guo, B. C. Pan, Y. Xie, "Heterogeneous Spin States in Ultrathin Nanosheets Induce Subtle Lattice Distortion To Trigger Efficient Hydrogen Evolution", *Journal Of The American Chemical Society* 138 (15) 5087-5092; (2016) (IF: 13.038)
24. L. L. Liu, J. Wang, Y. Y. Hou, J. Chen, H. K. Liu, J. Z. Wang, Y. P. Wu, "Self-Assembled 3D Foam-Like NiCo<sub>2</sub>O<sub>4</sub> as Efficient Catalyst for Lithium Oxygen Batteries", *Small* 12 (5) 602-611; (2016) (IF: 8.315)
25. D. M. Liu, X. X. Xu, Y. Du, X. Qin, Y. H. Zhang, C. S. Ma, S. H. Wen, W. Ren, E. M. Goldys, J. A. Piper, S. X. Dou, X. G. Liu, D. Y. Jin, "Three-dimensional controlled growth of monodisperse sub-50 nm heterogeneous nanocrystals", *Nature Communications* 7 10254; (2016) (IF: 11.329)
26. W. B. Luo, X. W. Gao, D. Q. Shi, S. L. Chou, J. Z. Wang, H. K. Liu, "Binder-Free and Carbon-Free 3D Porous Air Electrode for Li-O<sub>2</sub> Batteries with High Efficiency, High Capacity, and Long Life", *Small* 12 (22) 3031-3038; (2016) (IF: 8.315)
27. V. Malgras, H. Atae-Esfahani, H. J. Wang, B. Jiang, C. L. Li, K. C. W. Wu, J. H. Kim, Y. Yamauchi, "Nanoarchitectures for Mesoporous Metals", *Advanced Materials* 28 (6) 993-1010; (2016) (IF: 18.96)
28. W. B. Qiu, Z. Q. Ma, Y. C. Liu, M. S. Al Hossain, X. L. Wang, C. B. Cai, S. X. Dou, "Tuning Superconductivity in FeSe Thin Films via Magnesium Doping", *ACS Applied Materials & Interfaces* 8 (12) 7891-7896; (2016) (IF: 7.145)
29. R. Rajagopalan, L. Zhang, S. X. Dou, H. K. Liu, "Lyophilized 3D Lithium Vanadium Phosphate/Reduced Graphene Oxide Electrodes for Super Stable Lithium Ion Batteries", *Advanced Energy Materials* 6 (1) 1501760; (2016) (IF: 15.23)
30. Y. Shen, W. Zhang, S. L. Chou, S. X. Dou, "Comment on "Cycling Li-O<sub>2</sub> batteries via LiOH formation and decomposition", *Science* 352; (6286) (IF: 34.661)
31. S. J. Su, Y. N. NuLi, Z. G. Huang, Q. Miao, J. Yang, J. L. Wang, "A High-Performance Rechargeable Mg<sup>2+</sup>/Li<sup>+</sup> Hybrid Battery Using One-Dimensional Mesoporous TiO<sub>2</sub>(B) Nanoflakes as the Cathode", *ACS Applied Materials & Interfaces* 8 (11) 7111-7117; (2016) (IF: 7.145)
32. D. L. Tian, N. Zhang, X. Zheng, G. L. Hou, Y. Tian, Y. Du, L. Jiang, S. X. Dou, "Fast Responsive and Controllable Liquid Transport on a Magnetic Fluid/Nanoarray Composite Interface", *ACS Nano* 10 (6) 6220-6226; (2016) (IF: 13.334)
33. P. Tierno, T. H. Johansen, J. M. Sancho, "A Tunable Magnetic Domain Wall Conduit Regulating Nanoparticle Diffusion", *Nano Letters* 16 (8) 5169-5175 (2016); (IF: 13.779)
34. Y. Wang, C. Y. Wang, Y. Wang, H. K. Liu, Z. G. Huang, "Boric Acid Assisted Reduction of Graphene Oxide: A Promising Material for Sodium-Ion Batteries", *ACS Applied Materials & Interfaces* 8 (29) 18860-18866; (2016) (IF: 7.145)
35. Y. Wang, C. Y. Wang, Y. J. Wang, H. K. Liu, Z. G. Huang, "Superior sodium-ion storage performance of Co<sub>3</sub>O<sub>4</sub>@nitrogen-doped carbon: derived from a metal-organic framework", *Journal Of Materials Chemistry A* 4 (15) 5428-5435; (2016) (IF: 8.262)
36. H. Q. Wang, W. C. Zhang, H. K. Liu, Z. P. Guo, "A Strategy for Configuration of an Integrated Flexible Sulfur Cathode for High-Performance Lithium-Sulfur Batteries", *Angewandte Chemie-International Edition* 55 (12) 3992-3996; (2016) (IF: 11.709)
37. B. F. Wang, F. Zhao, G. D. Du, S. Porter, Y. Liu, P. Zhang, Z. X. Cheng, H. K. Liu, Z. G. Huang, "Boron-Doped Anatase TiO<sub>2</sub> as a High-Performance Anode Material for Sodium-Ion Batteries", *ACS Applied Materials & Interfaces* 8 (25) 16009-16015; (2016) (IF: 7.145)
38. Q. H. Wang, Y. X. Zhu, J. Xue, X. S. Zhao, Z. P. Guo, C. Wang, "General Synthesis of Porous Mixed Metal Oxide Hollow Spheres with Enhanced Supercapacitive Properties", *ACS Applied Materials & Interfaces* 8 (27) 17226-17232; (2016) (IF: 7.145)

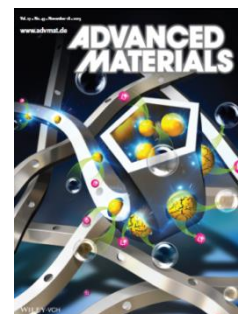
39. T. Z. Yuan, Y. Z. Jiang, W. P. Sun, B. Xiang, Y. Li, M. Yan, B. Xu, S. X. Dou, "Ever-Increasing Pseudocapacitance in RGO-MnO-RGO Sandwich Nanostructures for Ultrahigh-Rate Lithium Storage", *Advanced Functional Materials* 26 (13) 2198-2206; (2016) (IF: 11.382)
40. L. Zhang, H. P. Guo, R. Rajagopalan, X. L. Hu, Y. H. Huang, S. X. Dou, H. K. Liu, "One-step synthesis of a silicon/hematite@carbon hybrid nanosheet/silicon sandwich-like composite as an anode material for Li-ion batteries", *Journal Of Materials Chemistry A* 4 (11) 4056-4061; (2016) (IF: 8.262)
41. Y. Q. Zhang, X. Liu, S. L. Wang, S. X. Dou, L. Li, "Interconnected honeycomb-like porous carbon derived from plane tree fluff for high performance supercapacitors", *Journal Of Materials Chemistry A* 4 (28) 10869-10877; (2016) (IF: 8.262)
42. L. Zhang, R. Rajagopalan, H. P. Guo, X. L. Hu, S. X. Dou, H. K. Liu, "A Green and Facile Way to Prepare Granadilla-Like Silicon-Based Anode Materials for Li-Ion Batteries", *Advanced Functional Materials* 26 (3) 440-446; (2016) (IF: 11.382)
43. L. J. Zhang, J. L. Wang, Z. X. Cheng, Q. Sun, Z. Li, S. X. Dou, "Lead-free SnTe-based thermoelectrics: enhancement of thermoelectric performance by doping with Gd/Ag", *Journal Of Materials Chemistry A* 4 (20) 7936-7942; (2016) (IF 8.262)
44. H. M. Zhang, Y. Wang, P. R. Liu, S. L. Chou, J. Z. Wang, H. W. Liu, G. Z. Wang, H. J. Zhao, "Highly Ordered Single Crystalline Nanowire Array Assembled Three-Dimensional Nb<sub>3</sub>O<sub>7</sub>(OH) and Nb<sub>2</sub>O<sub>5</sub> Superstructures for Energy Storage and Conversion Applications", *ACS Nano* 10 (1) 507-514; (2016) (IF: 13.334)
45. Y. Zheng, T. F. Zhou, C. F. Zhang, J. F. Mao, H. K. Liu, Z. P. Guo, "Boosted Charge Transfer in SnS/SnO<sub>2</sub> Heterostructures: Toward High Rate Capability for Sodium-Ion Batteries", *Angewandte Chemie-International Edition* 55 (10) 3408-3413; (2016) (IF: 11.709)



## 2015

46. S. Aminorroaya-Yamini, D. R. G. Mitchell, Z. M. Gibbs, R. Santos, V. Patterson, S. Li, Y. Z. Pei, S. X. Dou, and G. J. Snyder, "Heterogeneous distribution of sodium for high thermoelectric performance of p-type multiphase lead-chalcogenides", *Advanced Energy Materials* 5, 1501047 (2015); (IF: 16.146)
47. Y. Bai, C. Han, X. O. Chen, H. Yu, X. Zong, Z. Li, and L. Z. Wang, "Boosting the efficiency of quantum dot sensitized solar cells up to 7.11% through simultaneous engineering of photocathode and photoanode", *Nano Energy* 13, 609 (2015); (IF: 10.325)
48. Q. J. Chen, M. Sanderson, and C. Zhang, "Nonlinear terahertz response of HgTe/CdTe quantum wells", *Applied Physics Letters* 107, 081111 (2015); (IF: 3.302)
49. S. Gong, T. Zhao, M. Sanderson, M. Hu, R. B. Zhong, X. X. Chen, P. Zhang, C. Zhang, and S. G. Liu, "Transformation of surface plasmon polaritons to radiation in graphene in terahertz regime", *Applied Physics Letters* 106, 223107 (2015); (IF: 3.302)
50. C. Han, Z. Li, G. Q. Lu, and S. X. Dou, "Robust scalable synthesis of surfactant-free thermoelectric metal chalcogenide nanostructures", *Nano Energy* 15, 193 (2015); (IF: 10.325)
51. I.Y. Jeon, M. J. Ju, J. T. Xu, H. J. Choi, J. M. Seo, M. J. Kim, I. T. Choi, H. M. Kim, J. C. Kim, J. J. Lee, H. K. Liu, H. K. Kim, S. X. Dou, L. M. Dai, and J. B. Baek, "Edge-fluorinated graphene nanoplatelets as high performance electrodes for dye-sensitized solar cells and lithium ion batteries", *Advanced Functional Materials* 25, 1170 (2015); (IF: 11.805)
52. L. F. Jiao, H. Q. Liu, Y. C. Liu, Y. J. Wang, Z. P. Guo, H. T. Yuan, and K. Z. Cao, "3D hierarchical porous alpha-Fe<sub>2</sub>O<sub>3</sub> nanosheets for high-performance lithium-ion batteries", *Advanced Energy Materials* 5, 1401421 (2015); (IF: 16.146)
53. C. L. Li, B. Jiang, N. Miyamoto, J. H. Kim, V. Malgras, and Y. Yamauchi, "Surfactant-directed synthesis of mesoporous Pd films with perpendicular mesochannels as efficient electrocatalysts", *Journal of the American Chemical Society* 137, 11558 (2015); (IF: 12.113)
54. G. X. Li, J. L. Wang, Z. X. Cheng, Q. Y. Ren, C. S. Fang, and S. X. Dou, "Large entropy change accompanying two successive magnetic phase transitions in TbMn<sub>2</sub>Si<sub>2</sub> for magnetic refrigeration", *Applied Physics Letters* 106, 182405 (2015); (IF: 3.302)
55. W. J. Li, S. L. Chou, J. Z. Wang, Y. M. Kang, J. L. Wang, Y. Liu, Q. F. Gu, H. K. Liu, and S. X. Dou, "Facile method to synthesize Na-enriched Na<sub>1+x</sub>Fe[Fe(CN)<sub>6</sub>] frameworks as cathode with superior electrochemical performance for sodium-ion batteries", *Chemistry of Materials* 27, 1997 (2015); (IF: 8.354)
56. W. J. Li, S. L. Chou, J. Z. Wang, J. L. Wang, Q. F. Gu, H. K. Liu, and S. X. Dou, "Multifunctional conducting polymer coated Na<sub>1+x</sub>MnFe(CN)<sub>6</sub> cathode for sodium-ion batteries with superior performance via a facile and one-step chemistry approach", *Nano Energy* 13, 200 (2015); (IF: 10.325)

57. Y. Q. Li, B. P. Bastakoti, V. Malgras, C. L. Li, J. Tang, J. H. Kim, and Y. Yamauchi, "Polymeric micelle assembly for the smart synthesis of mesoporous platinum nanospheres with tunable pore sizes", *Angewandte Chemie - International Edition* 54, 11073 (2015); (IF: 11.261)
58. X. Liang, M. G. Zhang, R. M. Kaiser, X. W. Gao, K. Konstantinov, R. Tandiono, Z. X. Wang, H. K. Liu, S. X. Dou, and J. Z. Wang, "Splithalf- tubular polypyrrole@sulfur@polypyrrole composite with a novel three-layer-3D structure as cathode for lithium/sulfur batteries", *Nano Energy* 11, 587 (2015); (IF: 10.325)
59. J. H. Lim, G. C. Park, S. M. Lee, J. H. Lee, B. Lim, S. M. Hwang, J. H. Kim, H. Park, J. Joo, and Y. P. Kim, "Surface-tunable bioluminescence resonance energy transfer via geometry-controlled ZnO nanorod coordination", *Small* 11, 3469 (2015); (IF: 8.368)
60. J. J. Lin, L. Zhao, Y. U. Heo, L. Z. Wang, F. H. Bijarbooneh, A. J. Mozer, A. Nattestad, Y. Yamauchi, S. X. Dou, and J. H. Kim, "Mesoporous anatase single crystals for efficient Co<sup>2+/3+</sup>-based dye-sensitized solar cells", *Nano Energy* 11, 557 (2015); (IF: 10.325)
61. X. Lin, J. J. Jiang, Z. M. Jin, D. Y. Wang, Z. Tian, J. G. Han, Z. X. Cheng, and G. H. Ma, "Terahertz probes of magnetic field induced spin reorientation in YFeO<sub>3</sub> single crystal", *Applied Physics Letters* 106, 092403 (2015); (IF: 3.302)
62. J. Liu, Q. Zhao, J. L. Liu, Y. S. Wu, Y. Cheng, M. W. Ji, H. M. Qian, W. C. Hao, L. J. Zhang, X. J. Wei, S. G. Wang, J. T. Zhang, Y. Du, S. X. Dou, and H. S. Zhu, "Heterovalent-doping-enabled efficient dopant luminescence and controllable electronic impurity via a new strategy of preparing II-VI nanocrystals", *Advanced Materials* 27, 2753 (2015); (IF: 17.493)
63. W. B. Luo, S. L. Chou, J. Z. Wang, Y. C. Zhai, and H. K. Liu, "A metal-free, free-standing, macroporous graphene@g-C<sub>3</sub>N<sub>4</sub> composite air electrode for high-energy lithium oxygen batteries", *Small* 11, 2817 (2015); (IF: 8.368)
64. W. B. Luo, X. W. Gao, S. L. Chou, J. Z. Wang, and H. K. Liu, "Porous AgPd-Pd composite nanotubes as highly efficient electrocatalysts for lithium-oxygen batteries", *Advanced Materials* 27, 6862 (2015); (IF: 17.493)
65. W. K. Pang, S. Kalluri, V. K. Peterson, N. Sharma, J. Kimpton, B. Johannessen, H. K. Liu, S. X. Dou, and Z. P. Guo, "Interplay between electrochemistry and phase evolution of the P2-type Na<sub>x</sub>(Fe<sub>1/2</sub>Mn<sub>1/2</sub>)O<sub>2</sub> cathode for use in sodium-ion batteries", *Chemistry of Materials* 27, 3150 (2015); (IF: 8.354)
66. S. H. Porter, Z. G. Huang, S. X. Dou, S. Brown-Xu, A. T. M. G. Sarwar, R. C. Myers, and P. M. Woodward, "Electronic structure and photocatalytic water oxidation activity of RTiNO<sub>2</sub> (R = Ce, Pr, and Nd) perovskite nitride oxides", *Chemistry of Materials* 27, 2414 (2015); (IF: 8.354)
67. M. Pramanik, M. Imura, J. J. Lin, J. Kim, J. H. Kim, and Y. Yamauchi, "Shape-controlled synthesis of mesoporous iron phosphate materials with crystallized frameworks", *Chemical Communications* 51, 13806 (2015); (IF: 6.834)
68. R. R. Salunkhe, J. Tang, Y. Kamachi, T. Nakato, J. H. Kim, and Y. Yamauchi, "Asymmetric supercapacitors using 3D nanoporous carbon and cobalt oxide electrodes synthesized from a single metal-organic framework", *ACS Nano* 9, 6288 (2015); (IF: 12.881)
69. R. R. Salunkhe, J. J. Lin, V. Malgras, S. X. Dou, J. H. Kim, and Y. Yamauchi, "Large-scale synthesis of coaxial carbon nanotube/Ni(OH)<sub>2</sub> composites for asymmetric supercapacitor application", *Nano Energy* 11, 211 (2015); (IF: 10.325)
70. M. Sanderson, Y. S. Ang, S. Gong, T. Zhao, M. Hu, R. B. Zhong, X. X. Chen, P. Zhang, C. Zhang, and S. G. Liu, "Optical bistability induced by nonlinear surface plasmon polaritons in graphene in terahertz regime", *Applied Physics Letters* 107, 203113 (2015); (IF: 3.302)
71. W. Seung, M. K. Gupta, K. Y. Lee, K. S. Shin, J. H. Lee, T. Y. Kim, S. Kim, J. Lin, J. H. Kim, and S. W. Kim "Nanopatterned textilebased wearable triboelectric nanogenerator", *ACS Nano* 9, 3501 (2015); (IF: 12.881)
72. N. Sharma, E. Gonzalo, J. C. Pramudita, M. H. Han, H. E. A. Brand, J. N. Hart, W. K. Pang, Z. Guo, and T. Rojo, "The Unique structural evolution of the O3-phase Na<sub>2/3</sub>Fe<sub>2/3</sub>Mn<sub>1/3</sub>O<sub>2</sub> during high rate charge/discharge: A sodium-centred perspective", *Advanced Functional Materials* 25, 4994 (2015); (IF: 11.805)
73. D. W. Su, S. X. Dou, and G. X. Wang, "Ultrathin MoS<sub>2</sub> nanosheets as anode materials for sodium-ion batteries with superior performance", *Advanced Energy Materials* 5, 1401205 (2015); (IF: 16.146)
74. D. W. Su, S. X. Dou, and G. X. Wang, "Bismuth: A new anode for the Na-ion battery", *Nano Energy* 12, 88 (2015); (IF: 10.325)
75. D. W. Su, S. X. Dou, and G. X. Wang, "Gold nanocrystals with variable index facets as highly effective cathode catalysts for lithium-oxygen batteries", *NPG Asia Materials* 7, E155 (2015); (IF: 10.118)





76. J. D. Sun, H. Qin, R. A. Lewis, X. X. Yang, Y. F. Sun, Z. P. Zhang, X. X. Li, X. Y. Zhang, Y. Cai, D. M. Wu, and B. S. Zhang, "The effect of symmetry on resonant and nonresonant photoresponses in a field-effect terahertz detector", *Applied Physics Letters* 106, 031119 (2015); (IF: 3.302)
77. W. P. Sun, X. H. Rui, D. Yang, Z. Q. Sun, B. Li, W. Y. Zhang, Y. Zong, S. Madhavi, S. X. Dou, and Q. Y. Yan, "Two-dimensional tin disulfide nanosheets for enhanced sodium storage", *ACS Nano* 9, 11371 (2015); (IF: 12.881)
78. Z. Q. Sun, T. Liao, W. X. Li, Y. H. Dou, K. S. Liu, L. Jiang, S. W. Kim, J. H. Kim, and S. X. Dou, "Fish-Scale bio-inspired multifunctional ZnO nanostructures", *NPG Asia Materials* 7, e232 (2015); (IF: 10.118)
79. D. W. Wang, G. M. Zhong, W. K. Pang, Z. P. Guo, Y. X. Li, M. J. McDonald, R. Q. Fu, J. X. Mi, and Y. Yang, "Toward understanding the lithium transport mechanism in garnet-type solid electrolytes: Li<sup>+</sup> ion exchanges and their mobility at octahedral/tetrahedral sites", *Chemistry of Materials* 27, 6650 (2015); (IF: 8.354)
80. L. Wang, S. Dou, J. T. Xu, H. K. Liu, S. Y. Wang, J. M. Ma, and S. X. Dou, "Highly nitrogen doped carbon nanosheets as an efficient electrocatalyst for the oxygen reduction reaction", *Chemical Communications* 51, 11791 (2015); (IF: 6.834)
81. Y. X. Wang, J. P. Yang, S. L. Chou, H. K. Liu, W. X. Zhang, D. Y. Zhao, and S. X. Dou, "Uniform yolk-shell iron sulfide-carbon nanospheres for superior sodium-iron sulfide batteries", *Nature Communications* 6, 8689 (2015); (IF: 11.470)
82. G. L. Xia, Y. B. Tan, X. W. Chen, D. L. Sun, Z. P. Guo, H. K. Liu, L. Z. Ouyang, M. Zhu, and X. B. Yu, "Monodisperse magnesium hydride nanoparticles uniformly self-assembled on graphene", *Advanced Materials* 27, 5981 (2015); (IF: 17.493)
83. F. X. Xiang, X. L. Wang, M. Veldhorst, S. X. Dou, and M. S. Fuhrer, "Observation of topological transition of Fermi surface from a spindle torus to a torus in bulk Rashba spin-split", *Physical Review B* 92, 035123 (2015); (IF: 3.736)
84. F. Xiao, S. Naficy, G. Casillas, M. H. Khan, T. Katkus, L. Jiang, H. K. Liu, H. J. Li, and Z. G. Huang, "Edge-hydroxylated boron nitride nanosheets as an effective additive to improve the thermal response of hydrogels", *Advanced Materials* 27, 7196 (2015); (IF: 17.493)
85. J. T. Xu, M. Wang, N. P. Wickramaratne, M. Jaroniec, S. X. Dou, and L. M. Dai, "High-performance sodium ion batteries based on a 3D anode from nitrogen-doped graphene foams", *Advanced Materials* 27, 2042 (2015); (IF: 17.493)
86. J. Yang, Y. X. Wang, S. L. Chou, R. Zhang, Y. Xu, J. Fan, W. X. Zhang, H. K. Liu, D. Zhao, and S. X. Dou, "Yolk-shell silicon-mesoporous carbon anode with compact solid electrolyte interphase film for superior lithium-ion batteries", *Nano Energy* 18, 133 (2015); (IF: 10.325)
87. Z. Y. Yu, Z. X. Cheng, S. R. Majid, Z. X. Tai, X. L. Wang, and S. X. Dou, "Smart design of free-standing ultrathin Co-Co(OH)<sub>2</sub> composite nanoflakes on 3D nickel foam for high-performance electrochemical capacitors", *Chemical Communications* 51, 1689 (2015); (IF: 6.834)
88. Z. J. Yue, X. L. Wang, and S. S. Yan, "Semimetal-semiconductor transition and giant linear magnetoresistances in three-dimensional Dirac semimetal Bi<sub>0.96</sub>Sb<sub>0.04</sub> single crystals", *Applied Physics Letters* 107, 112101 (2015); (IF: 3.302)
89. J. C. Zhuang, X. Xu, Y. Du, K. H. Wu, L. Chen, W. C. Hao, J. O. Wang, W. K. Yeoh, X. L. Wang, and S. X. Dou, "Investigation of electron-phonon coupling in epitaxial silicene by in situ Raman spectroscopy", *Physical Review B* 91, 161409 (2015); (IF: 3.736)

---

## 2014

1. C. Han, Q. Sun, Z. X. Cheng, J. Wang, Z. Li, G. Lu, S. X. Dou, "Ambient Scalable Synthesis of Surfactant-free Thermoelectric CuAgSe Nanoparticles with Reversible Metallic-n-p Conductivity Transition" *Journal of The American Chemical Society*, in press (IF= 11.444)
2. J. J. Lin, L. Zhao, Y. U. Heo, L. Wang, F. H. Bijarbooneh, A. J. Mozer, A. Nattestad, Y. Yamauchi, S. X. Dou, J. H. Kim, "Mesoporous Anatase Single Crystals for Efficient Co<sub>2</sub>O<sub>3</sub>-based Dye-sensitized Solar Cells", *Nano Energy*, in press (IF= 10.211)
3. D. W. Su, G. X. Wang, S. X. Dou, "Bismuth: A New Anode for the Na-ion Battery", *Nano Energy*, in press (IF= 10.211)
4. D. W. Su, G. X. Wang and S. X. Dou, "Gold Nanocrystals with Variable Index Facets as Highly Effective Cathode Catalysts for Lithium-Oxygen Batteries", *NPG Asia Materials*, in press (IF= 9.902)
5. J. T. Xu, M. Wang, N. P. Wickramaratne, M. Jaroniec, S. X. Dou, L. Dai, "High-Performance Sodium Ion Batteries Based on Three-Dimensional Anode from Nitrogen-Doped Graphene Foams" *Advanced Material* in press (IF: 15.409)

6. KZ Cao, LF Jiao, HQ Liu, YC Liu, YJ Wang, ZP Guo, HT Yuan, "3D Hierarchical Porous  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanosheets for High-Performance Lithium-Ion Batteries", *Advanced Energy Material* in press.(IF: 14.389)
7. I.Y. Jeon, M. J. Ju, J. Xu, H.J. Choi, J.M. Seo, M. J. Kim, I.T. Choi, H.M. Kim, J.C. Kim, J.J. Lee, H.K. Liu, H.K. Kim, S.X. Dou, L. Dai, J.B. Baek\*, "Edge-Fluorinated Graphene Nanoplatelets as High Performance Electrodes for Dye-Sensitized Solar Cells and Lithium Ion Batteries" *Advanced Functional Material* in press (IF: 10.439)
8. R. Y. Zhang, Y. J. Du, D. Li, D. K. Shen, J. P. Yang, Z. P. Guo, H. K. Liu, A. A. Elzatahry, D.Y. Zhao, "Highly Reversible and Large Lithium Storage in Mesoporous Si/C Nanocomposite Anodes with Silicon Nanoparticles Embedded in a Carbon Framework", *Advanced Materials*, 26, 6749-6755 (2014) (IF: 15.409)
9. J. Xu, J. Shui, J. Wang, M. Wang, H.K. Liu, S.X. Dou, I.Y. Jeon, J.M. Seo, J.B. Baek, L. Dai, "Sulfur-Graphene Nanostructured Cathodes via Ball-Milling for High Performance Lithium Sulfur Batteries", *ACS Nano*, 8, 10920-10930 (2014) (IF= 12.033)
10. Y. Du, J.C. Zhuang; HS Liu, X. Xu; S. Eilers, K.H. Wu; P. Cheng; J.J. Zhao, SD Pi, KW See, G. Peleckis, X.L. Wang, S.X. Dou, "Tunning the band gap in silisene", *ACS Nano* 8, 100019-10025 (2014) (IF= 12.033)
11. J. Xu, I.Y. Jeon, J.M. Seo, S.X. Dou, L. Dai, J.B. Baek, "Edge-Selectively Halogenated Graphene Nanoplatelets (XGnPs, X = Cl, Br, or I) Prepared by Ball-Milling and Used as Anode Materials for Lithium-Ion Batteries" *Advanced Materials*, 26 (7317-7323) (2014) (IF: 15.409)
12. S.M. Hwang, Y.G. Lim, J.G. Kim, Y.U. Heo, J. H. Lim, Y. Yamauchi, M.S. Park, Y.J. Kim, S.X. Dou, J.H. Kim, "A case study on fibrous porous SnO<sub>2</sub> anode for robust, High-capacity lithium-ion batteries", *Nano Energy* 14, S2211-2855 (2014) (IF= 10.211)
13. D.L. Tian, Z. Guo, Y. Wang, W.X. Li, X. Z, J. Zhai, L. Jiang, "Phototunable Underwater Oil Adhesion of Micro/Nanoscale Hierarchical-Structured ZnO Mesh Films with Switchable Contact Mode" *Advanced Functional Material* 24 (536-542) (2014)(IF:10.439)
14. K.S. Liu, M. Cao, A. Fujishima, L. Jiang, "Bio-Inspired Titanium Dioxide Materials with Special Wettability and their Applications" *Chemical Review*, 114 (10044-10094) (2014)
15. R.R. Salunkhe, J. Lin, V. Malgras, S.X. Dou, J.H. Kim, Y. Yamauchi, "Large-scale synthesis of coaxial carbon nanotube/Ni(OH)<sub>2</sub> composites for a symmetric super capacitor application" *Nano Energy*, 11 (211-218) (2014) (IF= 10.211)
16. X. Liang, M. Zhang, M. Kaise, X. Gao, K. Konstantinov, R. Tandiono, Z. Wang, H.K. Liu, S.X. Dou, J.Z. Wang, "Split-half-tubular Polypyrrole@Sulfur@Polypyrrole Composite with a Novel Three-layer-3D Structure as Cathode for Lithium/Sulfur Batteries", *Nano Energy* (2014) (IF= 10.211)
17. S. H. Aboutalebi, R. Jalili, D. Esrafilzadeh, M. Salari, Z. Gholamvand, S. A. Yamini, K. Konstantinov, R. L. Shepherd, J. Chen, S. E. Moulton, P. C. Innis, A. I. Minett, J. M. Razal, and G. G. Wallace, "High performance multifunctional graphene yarns: toward wearable all carbon energy storage textiles", *ACS Nano* 8, 2456 (2014); (IF: 12.033)
18. M.Y. Cao, J. Ju, K. Li, S.H. Dou, K.S. Liu & L. Jiang. Facile and large-scale fabrication of a cactus-inspired continuous fog collector. *Advanced Functional Materials*, 24, 3235-3240, 2014. (Frontpiece) (IF= 10.439)
19. G. Jeong, J. G. Kim, M. S. Park, M. Seo, S. M. Hwang, Y. U. Kim, Y. J. Kim, J. H. Kim, and S. X. Dou, "Core-shell structured silicon nanoparticles@TiO<sub>2-x</sub>/carbon mesoporous microfiber composite as a safe and high-performance lithium-ion battery anode", *ACS Nano* 8, 2977 (2014); (IF: 12.033)
20. X. Jin, B. R. Shi, L. C. Zheng, X. H. Pei, X. Y. Zhang, Z. Q. Sun, Y. Du, J. H. Kim, X. L. Wang, S. X. Dou, K. S. Liu, and L. Jiang, "Bio-inspired multifunctional metallic foams through the fusion of different biological solutions", *Advanced Functional Materials* 24, 2721 (2014); (IF= 10.439)
21. E. B. Li, B. J. Eggleton, K. J. Fang, and S. H. Fan, "Photonic Aharonov-Bohm effect in photon-phonon interactions", *Nature Communication* 5, 3225 (2014); (IF: 10.742)



22. Z.Q. Sun, T. Liao, Y.H. Dou, S.M. Hwang, M-S. Park, L. Jiang, J.H. Kim, S.X. Dou, "Generalized self-assembly of scalable two-dimensional transition metal oxide nanosheets", *Nature Commun.*, 5, 3813, (2014) (IF: 10.742)

23. X. Jin, B.R. Shi, L.C. Zheng, X.H. Pei, X.Y. Zhang, Z.Q. Sun, Y. Du, J.H.

Kim, X.L. Wang, S.X. Dou, K.S. Liu & L. Jiang. Bio-inspired multifunctional metallic foams through the fusion of different biological solutions. *Advanced Functional Materials*, 24, 2721-2726, (2014). (Frontpiece) (IF= 10.439)



24. W.J. Li, S.L. Chou, J.Z. Wang, J.H. Kim, H.K. Liu, S.X. Dou, "Sn<sub>4</sub>+xP<sub>3</sub> @ Amorphous Sn-P Composites as Anodes for Sodium-Ion Batteries with Low Cost, High Capacity, Long Life, and Superior Rate Capability", *Advanced Materials*, 26, 4037-4042, (2014) (IF: 15.409)

25. T.F. Zhou, W.K. Pang, C.F. Zhang, J.P. Yang, Z.X. Chen, H.K. Liu, Z.P. Gou, "Enhanced Sodium-Ion Battery Performance by Structural Phase Transition from Two-Dimensional Hexagonal-SnS<sub>2</sub> to Orthorhombic-SnS", *ACS NANO*, 8, 8323-8333, (2014) (IF: 12.033)

26. J. Foroughi, G.M. Spinks, D. Antiohos, A. Mirabedini, S. Gambhir, G.G. Wallace, S.R. Ghorbani, G. Peleckis, M.I. E. Kozlov, M.D. Lima and R.H. Baughman, "Highly Conductive Carbon Nanotube-Graphene Hybrid Yarn" *Advanced Functional Materials*, 24, 5859-5865, (2014), (IF= 10.439)