



苏州大学
Soochow University

能源学院
College of Energy



首页 学院概况 学院资讯 师资队伍 人才培养 科学研究 党群工作 学生园地 合作交流 SIEMIS

黄程

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个人信息

个人简介

黄程, 江苏省特聘教授, 博士生导师, 四青人才, 江苏省双创人才。1997, 1999年获得南京大学高分子化学与物理学士与硕士学位, 2002, 2004获得美国宾夕法尼亚州立大学电子工程与材料硕士与博士学位。主要从事基于能源光电子学与柔性混合电子学换能储能电源材料及无源换能智能传感器等方面的应用基础研究。

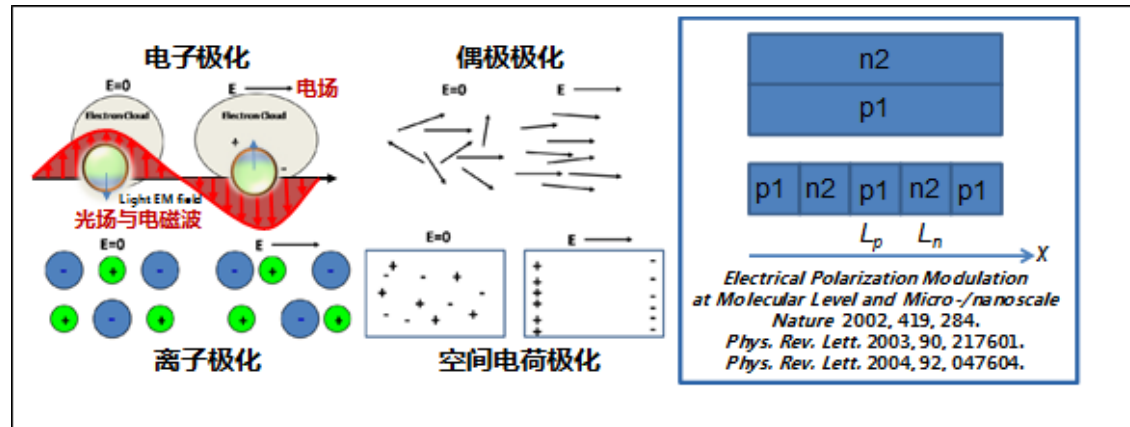
研究方向

能源光电子学/柔性混合电子学：能源光电换能储能材料与柔性器件、光电活性柔性智能材料极化调控与强化。

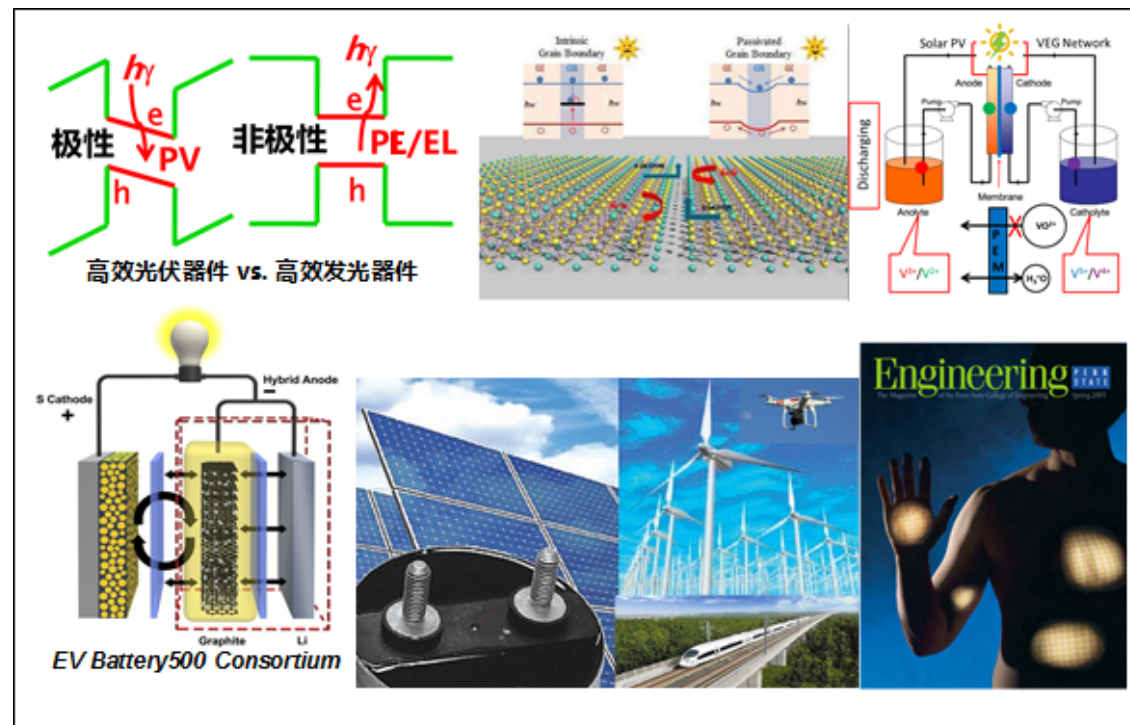
- (1) 发光可视化与光伏半导体电池、电子电容与电化学电池、锂电与液流储能与动力材料，可穿戴柔性微能源；
- (2) 声光电热智能换能材料、光电功能半导体、驻压电功能电介质，可穿戴无源换能智能传感器及仿生微纳机器人。<协筹（北大）微纳机器人联合研究中心NRC>

科学研究

能源光电子学/柔性混合电子学：能源光电换能储能材料与柔性器件、光电活性柔性智能材料极化调控与强化。



一、发光可视化与光伏半导体电池、电子电容与电化学电池、锂电与液流储能与动力材料，可穿戴柔性微能源；



Cheng Huang, Jie Xiao, Yuyan Shao, Jianming Zheng, Wendy D. Bennett, Dongping Lu, Laxmikant V. Saraf, Mark Engelhard, Liwen Ji, Jiguang Zhang, Xiaolin Li, Gordon L. Graff & Jun Liu, Manipulating surface reactions in lithium-sulphur batteries using hybrid anode structures, Nature Communications 5(3015): 1-7.

Cheng Huang, Bo Yuan, Fei Ye, Zhongfan Liu and Wei Huang, Minimum width carbonyl-rich graphene-like nanoribbons for high-rated capacity lithium energy storage, CN/PCT Patent CN201711071986.1.

Cheng Huang, Gaoqiang Niu and Wei Huang, Virtual crystalline film based perovskite solar cells with enhanced efficiency and stability, CN/PCT PatentCN106159088A.

Cheng Huang and Q.M. Zhang, High-dielectric-constant polymers as high-energy-density (HED) field effect actuator and capacitor materials. SPIE Smart Structures and Materials: Electroactive Polymers Actuators and Devices (EAPAD), 2004, 5385(1): 87-98.

二、声光电热智能换能材料、光电功能半导体、驻压电功能电介质，可穿戴无源换能智能传感器、成像与影像、柔性执行器及仿生微纳机器人。<协筹（北大）微纳机器人联合研究中心NRC>



Zhang, Shanshan; Yu, Yang; Wu, Jingen; Gao, Xiangyu; Huang, Cheng; Dong, Shuxiang, Enhanced piezoelectric performance of BiScO₃-PbTiO₃ ceramics modified by 0.03Pb(Sb_{1/2}Nb_{1/2})O₃, Journal of Alloys and Compounds, 2018, 731: 1140-1145.

Q.M. Zhang, Hengfeng Li, Martin Poh, Feng Xia, Z.Y. Cheng, Haisheng Xu and Cheng Huang, An all-organic composite actuator material with a high dielectric constant, Nature 2002, 419 (1):284-287.

Cheng Huang, Howard E. Katz, and James E. West, Organic field-effect transistors and unipolar logic gates on charged electrets from spin-on organosilsesquioxane resin, Advanced Functional Materials 2007, 17(1):142-153.

Cheng Huang and Q.M. Zhang, Electroactive polymer (EAP) micromirrors and light-valve technology for MOEMS display and imaging systems, SPIE Smart Structures and Materials: Smart Electronics, MEMS, BioMEMS and Nanotechnology, 2004, 5389: 274-285.

科研团队

赛飞 (SIFE) 柔性混合电子研究课题组-能源光电材料与柔性器件技术联合实验室;

协筹 (北大) 微纳机器人联合研究中心 (NRC) 。

论文成果

Cheng Huang, Q.M. Zhang, Guest Co-editors, MDPI Journal: Coatings, Special Issue: Electroactive Polymer Films, 2018.

Cheng Huang, Jie Xiao, Yuyan Shao, Jianming Zheng, Wendy D. Bennett, Dongping Lu, Laxmikant V. Saraf, Mark Engelhard, Liwen Ji, Jiguang Zhang, Xiaolin Li, Gordon L. Graff & Jun Liu, Manipulating surface reactions in lithium-sulphur batteries using hybrid anode structures, Nature Communications 5(3015): 1-7.

Cheng Huang, Bo Yuan, Fei Ye, Zhongfan Liu and Wei Huang, Minimum width carbonyl-rich graphene-like nanoribbons for high-rated capacity lithium energy storage, CN/PCT Patent CN201711071986.1.

Cheng Huang, Gaoqiang Niu and Wei Huang, Virtual crystalline film based perovskite solar cells with enhanced efficiency and stability, CN/PCT Patent CN106159088A.

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Zhang, Shanshan; Yu, Yang; Wu, Jingen; Gao, Xiangyu; Huang, Cheng; Dong, Shuxiang, Enhanced piezoelectric performance of BiScO₃-PbTiO₃ ceramics modified by 0.03Pb(Sb_{1/2}Nb_{1/2})O₃, Journal of Alloys and Compounds, 2018, 731: 1140-1145.

Zhang, Shanshan; Huang, Cheng; Huang Wei, The strategies for flexoelectricity-enhanced elasto-mechanoluminescent nanocomposites and self-powered flexo-phototronics, CN/PCT Patent CN201710481437.5.

Q.M. Zhang, Hengfeng Li, Martin Poh, Feng Xia, Z.Y. Cheng, Haisheng Xu and Cheng Huang, An all-organic composite actuator material with a high dielectric constant, Nature 2002, 419 (1):284-287.

Cheng Huang, Howard E. Katz, and James E. West, Organic field-effect transistors and unipolar logic gates on charged electrets from spin-on organosilsesquioxane resin, Advanced Functional Materials 2007, 17(1):142-153.

Cheng Huang and Q.M. Zhang, Electroactive polymer (EAP) micromirrors and light-valve technology for MOEMS display and imaging systems, SPIE Smart Structures and Materials: Smart Electronics, MEMS, BioMEMS and Nanotechnology, 2004, 5389: 274-285.

荣誉奖励

四青人才 (信息科学, 物理电子学) ;

江苏省特聘教授 (能源光电子学) ;

江苏省双创计划（柔性电子材料与器件）；

中国化学与物理电源行业协会储能应用专家委员会最具前沿技术研究课题组奖。

课程教学

- (1)世界新能源战略与现状系列讲座（本科生）
- (2)专业综合实验（本科生）
- (3)薄膜技术（本科生）
- (4)薄膜过程与器件物理（硕士研究生，全英文）
- (5)先进能源进展（博士研究生，全英文）

招生信息

课题组（联合）招收有志于从事新能源、新材料、能源光子学、柔性混合电子学的博士生、硕博连读生、硕士生和本科生。物理、材料科学与工程、化学和高分子、电化学、电子和光子、机械与生物医学工程等相关背景。

诚聘博士后（副教授）、专职助理研究员（研究员）、工程师、科研助理。

简单的事重复做，您就是专家；重复的事用心做，您就是赢家！

联系方式：能源与材料创新大楼225；chengh@suda.edu.cn

Dream, Design, Innovate

Engineering is a form of art and has filled the world with things of obvious visual beauty but also with subtle forms. -Louis Brown

Engineering is about bringing creative visions to life, and coming up with answers that'll bring about changes that will better the present & future of our society.

Engineering calls for innovation and a commitment towards creating solutions from which human beings can benefit.