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出生年月: 1986.01

政治面貌: 党员

工作教育背景

- 2018.08~至今 中国科学院上海光机所, 副研究员
- 2015.09~2018.07 中国科学院上海光机所, 助理研究员
- 2010.09~2015.06 复旦大学, 物理系, 光学专业硕博连读
学业成绩: 复旦大学物理系博士研究生前 10%
- 2006.09~2010.06 曲阜师范大学, 物理工程学院, 物理学专业学士
学业成绩: 以学院前 1%排名保送复旦大学物理系研究生

学术科研

1、研究方向: 生物光学医学、超快纳米光学及非线性光学显微成像技术。

2、学术技能: 熟悉各种激光器 (如飞秒激光器, 半导体激光器, Ar 离子激光器,) 和测量仪器 (如光谱仪, 光电倍增管, 流式细胞仪, 小动物活体成像仪等生物医学检测设备), 并完整搭建飞秒激光显微微区光谱测量及成像系统、飞秒激光受激拉曼系统, 双端泵浦的光片显微成像系统。精通激光扫描荧光共焦显微镜在生物成像及单双光子光谱分析方面的应用, 熟练荧光光谱和荧光寿命探测和分析, 熟悉动物细胞培养技术。

3、承担项目

- 1) 低剂量 X 射线激发长余辉镓锗酸锌纳米粒子的光动力治疗研究, 国家自然科学基金青年科学基金, 23 万, 负责人, 在研 (2019.01~2021.12)
- 2) 基于光片显微成像技术的肿瘤光动力疗法微观机制的研究, 上海市青年科技英才扬帆计划, 20 万, 负责人, 在研 (2017.05~2020.04)
- 3) 基于金纳米双锥负载新型卟啉光敏剂的双光子光动力诊疗一体化研究, 上海市“科技创新行动计划”港澳台科技合作项目, 40 万, 负责人, 在研 (2019.09~2022.08)
- 4) 相对论性涡旋激光, 中国科学院先导专项B, 1808 万, 参与, 在研 (2016.07~2022.04)
- 5) 基于 SRSI 方法的新型飞秒脉冲测量仪, 中国科学院仪器项目, 309 万, 参与, 结题 (2016.11~2019.02)

5、学术成果

- (1) **Jing Wang**, Dong Liang, Zehua Qu, Ivan M. Kislyakova, Valery M. Kiselev, Jun Liu*, PEGylated-folic acid-modified black phosphorus quantum dots as near-infrared agents for dual-modality imaging-guided selective cancer cell destruction. *Nanophotonics*, 2020, DOI: <https://doi.org/10.1515/nanoph-2019-0506>. (IF= 6.908)
- (2) **Jing Wang**, Han Zhang; Xiao Xiao; Dong Liang; Xinyue Liang; Lan Mi; Jianfang Wang(*); Jun Liu(*), Gold nanobipyramid-loaded black phosphorus nanosheets for plasmon-enhanced photodynamic and photothermal therapy of deep-seated orthotopic lung tumors. *Acta Biomaterialia*, 2020, DOI: <https://doi.org/10.1016/j.actbio.2020.03.001>. (IF= 6.638)
- (3) **Jing Wang**, Xiaolu Zhuo, Xiao Xiao, Rihua Mao, Yong Wang, Jianfang Wang(*), Jun Liu(*), AlPcS-Loaded Gold Nanobipyramids with High Two-Photon Efficiency for Photodynamic Therapy in vivo, *Nanoscale*, 2019, 11, 3386-3395. (IF=6.97)
- (4) **Jing Wang**, ShiMiao Wang, Lan Mi, Jun Liu, Aspect ratio dependence of the enhancement of fluorescence intensity by gold nanobipyramids for cancer cell imaging and photodynamic therapy. *Laser Physics*, 2018, 28(7), 075602.
- (5) **Jing Wang**(#); Yujie Li(#); Rihua Mao; Yong Wang; Xiuping Yan(*); Jun Liu(*), Persistent luminescent nanoparticles as energy mediators for enhanced photodynamic therapy with fractionated irradiation, *Journal of Materials Chemistry B*,

2017,7, 5(29): 5793~580.

(6) **Jing Wang** (*); Jun Liu(*), PEI-folic acid modified carbon nanodots for cancer cell-targeted delivery and two-photon excitation imaging, **Rsc Advances**, 2016, 6(24): 19662~19668.

(7) **Jing Wang**; Xiongwei Wang; Shimiao Wang; Zheng Huang; Jun Liu(*), The conjugates of carbon nanodots and chlorin e6 for enhancing cellular internalization and photodynamic therapy of cancers, **Laser Physics Letters**, 2016.9, 13(9): 95602~95609.

(8) **Jing Wang**, Zehui Zhang, Shuai Zha, Yinyan Zhu, Peiyi Wu, Benjamin Ehrenberg, Ji-Yao Chen. Carbon nanodots featuring efficient FRET for two-photon photodynamic cancer therapy with a low fs laser power density. **Biomaterials**, 2014, 35, 9372-9381.

(9) **Jing Wang**, Daixin Ye, Guohai Liang, Jian Chang, Jilie Kong, Jiyao Chen. One-step synthesis of water-dispersible silicon nanoparticles and their use in fluorescence lifetime imaging of living cells. **J. Mater. Chem. B**, 2014,2, 4338-4345.

(10) **Jing Wang**, Jiyao Chen. An alternative model for photodynamic therapy of cancers: hot-band absorption. **Appl. Phys. Lett.** 2013,103, 253704.

(11) **Jing Wang**, Wang Li, Hongbo Yu, NH Cheung Jiyao Chen. Sulfonated aluminum phthalocyanines for two-photon photodynamic cancer therapy: the effect of the excitation wavelength. **Laser Phys.** 2014, 24, 035602.

(12) **Jing Wang**, Hongyan Tang, Wuli Yang, Jiyao Chen. Aluminum phthalocyanine and gold nanorod conjugates: the combination of photodynamic therapy and photothermal therapy to kill cancer cells **J. Porphyrins Phthalocyanines**, 2012; 16: 802-808.

(13) 安坤, **王晶**, 梁东, 刘军. 利用 SOFI 方法提高光片荧光显微镜横向分辨率. 中国激光, 2017, 044(006):268-273.

(14) 王诗淼, **王晶**, 刘军, 李儒新. 不同长径比金纳米双锥对光敏剂荧光和光动力疗法效果的增强. 中国激光, 2017(06):280-286.

(15) 肖晓, 杜舒曼, 赵富, **王晶**, 刘军, 李儒新. 基于赝热光照明的单发光学散斑成像. 物理学报, 2019, 68(03):164-171.

(16) Dong Liang, Qiu Zhang, **Jing Wang**, Jun Liu. Single-shot Fresnel incoherent digital holography based on geometric phase lens. **Optica Acta: International Journal of Optics**, 2020, 67(2):92-98.

(17) Maojia Huang, Zixiao Zhang, Xinyi Wang, Yonghui Xie, Yiyao Fei, Jiong Ma, **Jing Wang**, Li Chen, Lan Mi and Yulan Wang, Detecting benign uterine tumors by autofluorescence lifetime imaging microscopy through adjacent healthy cervical tissues. **Journal of Innovation in Optical Health Science**, 2019, 12(05):3025-3047.

(18) Xi Wu, **Jing Wang**, Jiyao Chen. The effect of aspect ratio of gold nanorods on cell imaging with two-photon excitation. **Plasmonics**, 2013, 8, 685-691.

(19) Song Wang, **Jing Wang**, Jiyao Chen. Conjugates of folic acids with zinc aminophthalocyanine for cancer cell targeting and photodynamic therapy by one-photon and two-photon excitations. **J. Mater. Chem. B**, 2014, 2, 1594-1602.

(20) Jinfeng Zhao, **Jing Wang**, Jiyao Chen et al. Gallium phthalocyanine photosensitizers: carboxylation enhances the cellular uptake and improves the photodynamic therapy of cancers. **Anti-Cancer Agent. Me.** 2012, 12, 604-610.

获奖情况

2010.09~2015.6 研究生阶段

- 2015.05 复旦大学优秀毕业生
- 2015.01 复旦大学优秀学生
- 2014.09 复旦大学博士国家奖学金
- 2013.09 复旦大学博士二等奖学金
- 2012.09 复旦大学硕士二等奖学金

2006.09~2010.06 本科生阶段

- 2008.10 国家奖学金(1%)
- 2007-2010 年, 连续四年荣获曲阜师范大学校级奖学金(学校 3%)

自我评价

- 诚实守信, 工作严谨踏实。拥有积极向上的生活态度和良好的心理素质, 有较好的抗压能力和自我调节能力。

- 专业基础知识扎实，对各种光学实验仪器的原理及使用兴趣浓厚，科研敏感度较高，胆大心细。
- 善于搭建光学平台，善于光路调节以及光路改造，善于光学成像系统的搭建以及图像分析。
- 有良好的物理思维和理论功底、且希望与生物医学深度融合。