Fan Wang
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Education

Ph.D. in Optical Physics (holographic optical tweezers) **Feb 2010 – Jan 2014**
University of New South Wales, Sydney, NSW, Australia
Ph.D. Dissertation: " *Spectroscopic Characterization of Optically Trapped Semiconductor Nanowires and Nanoparticles* ", School of Physics. Supervisor: Dr Peter Reece

M.S. in Optoelectronics and Photonics **Jul 2008 – Jul 2009**
University of New South Wales, Sydney, NSW, Australia

B.A. in Science **Sep 2003 – Aug 2007**
Beihang University, Beijing, China
Applied Physics (Optoelectronics Engineering), Department of Science

Employment History

University of Sydney, Research Assistant **Jul 2009 – Dec 2009**
In the ARC Centre of Excellence for Ultrahigh bandwidth Devices for Optical Systems (CUDOS) node

Australian National University, Postdoctoral Research Fellow **Aug 2013 – Mar 2015**
Leading the photonics research direction in Prof Chennupati Jagadish's group.

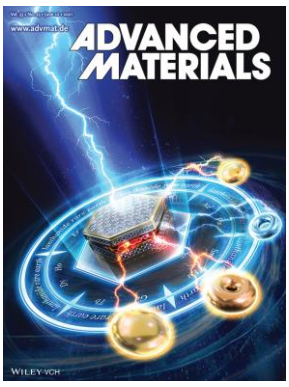
Macquarie University, Postdoctoral Research Fellow **Mar 2015 – Mar 2017**
In the ARC Centre of Excellence for Nanoscale Bio-Photonics (CNBP) node, including supervising two PhD students.

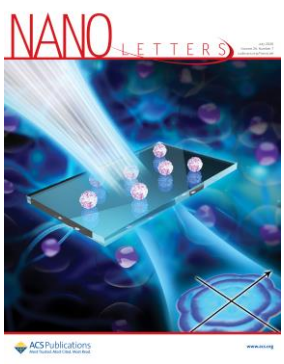
University of Technology Sydney, Postdoctoral Research Fellow **Mar 2017 – Jan 2019**
A research theme leader in biophotonics, including supervising four PhD students.

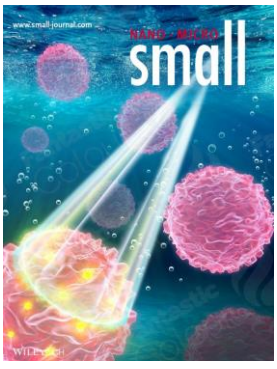
University of Technology Sydney, Chancellor's Postdoctoral Research Fellow **Jan 2019 -Now**
Fellowship to establish my independent research on super-resolution imaging.

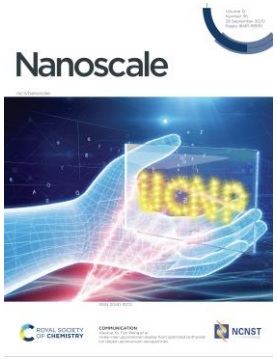
University of Technology Sydney, Lecturer **April 2020 -Now**
In the UTS School of Electrical and Data Engineering as a lecturer and principal investigator to establish my nano-optoelectronics group. I was awarded an ARC DECRA fellowship (2020) to conduct my biological laser cooling technology research.

Research Achievements and Contributions









My publications have been cited more than **4038** times, and my h index is **30** in Google Scholar. In my research discipline and my career level, this is considered **top** of the range. According to SciVal, my research impact ranked **4th** /228 (2016-2021) in the field of Upconversion Nanoparticles, **11th** /110 (2011-2020) in Optical Tweezers, and **6th** /150 (2016-2021) in super-resolution microscopy, in Australia. In the **worldwide** region, my research ranked **83nd** (2016-2021) in the fields of Upconversion Nanoparticles. My research articles are published in premier international journals in nanophotonics, biophotonics, and nanotechnology, typically within the top **5**% range of my disciplines. I have published in *Nature* (IF ~42.7), *Nature Nanotechnology* (IF ~31.5), *Nature Photonics*×2 (IF ~31.2), *Nature Communications*×5 (IF ~12.1), *Optica* (IF ~11.1), *Nano Letters*×12 (IF ~11.2), *Advanced Materials*×3 (IF ~ 27.3), *Advanced Functional Materials* (IF ~16.8), *ACS Nano* (IF ~14.6), *Light: Science & Application*×4 (IF ~ 14.1), and

Small (IF~11.5). This has resulted in a very high average IF **10** over my publications. I have published ***twelve*** papers (including 5 leading author papers) in ***Nano Letters***. Of my **67** journal papers, I have **17** leading author papers. In my **27 second and third authored papers,** I have made significant contributions to designing projects, conducting experiments and directly supervising students.

Top 5 publications from last three years relevant to the proposal include:

1. *Nature Nanotechnology* (2021) – Shan, Xuchen†, **Wang, Fan***†, Wang, Dejiang, Wen, Shihui, Chen, Chaohao, Di, Xiangjun, Nie, Peng, Liao, Jiayan, Liu, Yongtao, Ding, Lei, Reece, Peter* & JIn, Dayong*, "Optical tweezers beyond refractive index mismatch using highly doped nanoparticles", vol 16 (5), 531-537. [IF: 31.5] [co-first author, co-corresponding author]
2. *Nature Communication* (2021) – Liu, Yongtao†, Zhou, Zhiguang†, **Wang, Fan***†, Kewes, Günter, Wen, Shihui, Burger, Sven, Wakiani, Majid Ebrahimi, Xi, Peng, Yang, Jiong, Yang, Xusan, Benson, Oliver* & Jin, Dayong*, "Axial Localization and Tracking of Self-interference Nanoparticles by Lateral Point Spread Functions", 12(1), 1-9. [IF: 12.1] [co-first author, co-corresponding author]
3. *Advanced Materials* (2021) – Chaohao Chen, Baolei Liu, Yongtao Liu, Jiayan Liao, Xuchen Shan, **Fan Wang***, and Dayong Jin*, "Heterochromatic Nonlinear Optical Responses in Upconversion Nanoparticles for Super-resolution Nanoscopy", vol 33 (23), 2008847. [**published as the front cover**] [IF: 27] [co-corresponding author]
4. *Nature Communication* (2018) – C. Chen†, **F. Wang***†, S. Wen, Q. P. Su, M. C.L. Wu, Y. Liu, B. Wang, D. Li, X. Shan, M. Kianinia, I. Aharonovich, M. Toth, S. P. Jackson, P. Xi and D. Jin*, "Multi-photon near-infrared emission saturation nanoscopy using upconversion nanoparticles", vol. 9(1), 4, 2018. [co-first author, co-corresponding author]
5. *Light: Science & Applications* (2018) - **F. Wang***, S. Wen, H. He, B. Wang, Z. Zhou, O. Shimoni, D. Jin*, "Microscopic inspection and tracking of single upconversion nanoparticles in living cells", vol. 7(4), 18007, 2018, [**published as the front cover**] [first author, co-corresponding author]

Research support income

- 2021: Linkage Infrastructure, Equipment and Facilities (LE210100125, ARC), "National Facility for Infrared Technologies", 2021-2022, (sixth Chief Investigator, $837,000.00)
- 2020: Discovery Early Career Researcher Award (DE200100074, ARC), **Fan Wang**, "Nanoscale laser cooling in physiological environment", 2020-2022, (Chief Investigator, $418,210).
- 2019: Discovery Projects (DP190101058, ARC), Milos Toth, Igor Aharonovich, Carlo Bradac, **Fan Wang**, "Super-resolution imaging techniques based on van der Waals materials", 2019-2022, (fourth Chief Investigator, $397,500).
- 2019: Chancellor's Postdoctoral Research Fellowship (CPDRF, UTS), **Fan Wang**, "Developing new tools for super-resolution tracking cells' talk within a mini-organ", 2019-2023 (Chief Investigator, $450,000).
- 2018: Early Career Researcher Grants Scheme (ECRGS, UTS), **Fan Wang**, "Controlling photons to assemble nanoscale photonic devices", 2018-May 2019 (Chief Investigator, $30,000).
- 2017: Capital Expenditure Grant (UTS), Dayong Jin, **Fan Wang**, "Developing bioimaging system", 2017-2018 (Second Chief Investigator, $200,000).
- 2017: Capital Expenditure Grant (UTS), Dayong Jin, **Fan Wang**, "Developing super-resolution imaging system", 2017-2018, (Second Chief Investigator, $250,000).
- 2016: Macquarie University Research Development Grants (MURDG, MQU), Yong Liu, **Fan Wang**, Lu Yan, Tom Lawson, "Electrically stimulated regeneration of Optic Nerve", 2016-2017, (Second Chief Investigator, $39,680).
- 2010: University International Postgraduate Award (UIPA, UNSW), **Fan Wang**, "Optically trapped semiconductor nanowires and nanoparticles", 2010-July 2013, (Chief Investigator, $100,000).

Peer recognition of research: awards and prizes

- UNSW International Postgraduate Award 2010
- ARC Discovery Early Career Researcher Award 2020
- David Syme research prize 2021.

Professional Activities

- I am a reviewer for *Nano Letters, Light: Science & Applications, Journal of the American Chemical Society, Optica, IEEE Transactions on Medical Imaging, Nanoscale, Photonics Research, APL Photonics, Optics Express, Biomedical Optics Express, Optics Letters, Journal Nano-Structures & Nano-Objects, Journal of Raman Spectroscopy journals, Journal of Physics and Chemistry of Solids, Frontiers in Chemistry section catalysis and Photocatalysis, Journal of Physics D Applied Physics, Advanced devices and instrumentation, ACS Applied Materials & Interfaces*
- Associate-editor for *Frontiers in Chemistry*
- Guest-editor for *MDPI Photonics*
- Guest-editor for *European Physical Journal*

Conference organizer and chair

- I organized the section of Optical Sensers for Chemical and Biological applications for Photonics and Electromagnetics Research Symposium 2021.
- I am on the program committee for the 35th International Conference on the Physics of Semiconductors, Sydney, August 2020
- I chaired a session for the International Conference on Nanoscience and Nanotechnology / International Conference on BioNano Innovation，Brisbane, February 2020
- I chaired a session for the 9th International Conference on Nanophotonics, 2016
- I organised the IBMD Sydneynano seminars in 2018. More than 20 distinguished scientists (including 13 professors) from Australia and internationally presented their work at UTS.

Invited talks

- **Keynote** presentation for "Mathematic, Physics, Mechanical Electrical and Electronic Engineering Session at the 13th Research Symposium", Australia, November 2021
- Invited presentation for" Materials Oceania 2021", Australia, October 2021
- **Keynote** presentation for "OIT21: Optical Systems, Optoelectronic Instruments, Novel Display and Imaging Technology", China, 2022
- Invited presentation for "Photonics and Electromagnetics Research Symposium", China, 2022
- Invited presentation for "OSA Technical Groups Webinar", November 2020
- Invited presentation for "SPIE Optical Engineering + Applications", August 2020
- Invited presentation for "BioNano Innovation", June 2020;
- Invited presentation for "International Conference on Nanoscience and Nanotechnology / International Conference on BioNano Innovation"，Brisbane, February 2020;
- **Keynote** presentation for "The International Conference on Nanomaterials & Atomaterials Science and Applications"，Melbourne，February 2020
- Invited presentation "International Conference on Energy and Healthcare Materials"，Sydney，February 2020;
- Invited presentation for "International Conference on Emerging Energy and Environmental Technologies 2019: Young Academic Forum"，Sydney，December 2019;
- Invited presentation for "the International Union of Materials Research Societies – International Conference in Asia"，Perth，September 2019；
- Invited presentation for "International Symposium on Future Materials", Wollongong, Australia, February 2019
- Invited presentation for "the 9th International Conference on Nanophotonics", Taiwan, March 2016

Invited Seminar

- Peking University, China; December 2019
- Beijing An Zhen Hospital, Affiliated of Capital University of Medical Sciences, China; December 2019
- Hunan University, China; December 2019

- Central South University, China; December 2019
- Swinburne university of technology, Australia; April 2019
- RMIT University, Australia; April 2019
- Consiglio Nazionale delle Ricerche, Istituto Processi Chimico-Fisici, Italy; April 2018
- The Australian National University; September 2017
- CUDOS seminar, University of Sydney, Australia; May 2016
- MQ photonics seminar, Macquarie University, Australia; April 2015
- Beihang University, China; October 2014

Patents

- Gao, L., **Wang, F.**, Shang, X., Li, S. CN211786462U, 2020-10-27 (Chinese Patent)
- Gao, L., **Wang, F.**, Shang, X., Li, S. CN211786516U, 2020-10-27 (Chinese Patent)
- **Wang, F**., Jin, D. & Chen, C. WO2020028942A1, 2020-02-13 (PCT, World Patent)
- Chen, C., Jin, D. & **Wang, F**. AU2018902855A0, 2018-08-16 (Australian Patent)

Outreach activities, e.g. public events, media

- I run my own YouTube channel, introducing my research and short lectures to the public. My short video introducing biophotonics has been watched 373 times since November 2019 and an open lecture on upconversion nanoparticles has been watched 484 times since January 2021.
- I have appeared in diverse online media news: *Global Times, EurekAlert, Florida News Times, Worlds News Network, Australian Online News, Bollyinside, Scimex, Sciencedaily, Phys.org, Nanowerk, Lab+Life Scientist, UTS Newsroom, The Imaging wire, Doctorportal, Twitter and WeChat* media
- Since 2017 I have represented my school and institute at the UTS open day to explain STEM to students and parents.
- Media appearances including Sydney radio station 2GB 873AM about a new world record of imaging resolution through thick biological tissue, and a video interview by Xinhua Net about a breakthrough that overcame a fundamental issue that has limited biophotonics technologies for more than 20 years.
- Outreach to industry has resulted in:
  - Designing portable single particle characterization system for LightLife
  - Designing on-road imaging system for Industrial Monitoring & Control Pty Ltd
  - Designing augmented reality integrated motor helmet for Heads Up Safety Systems Pty Ltd
  - Characterising the optical transmission efficiency of the detection tip in a cervical cancer screening device for Truscreen
  - Designing light diffusers in an air cleaner for Design+Industry

Teaching experience

Lecturer

- Electronics and Circuits, 48520, 2020-2021, UTS
- Medical Imaging Technology (Endoscopy), 68202, 2017, UTS
- Medical Imaging (Endoscopy), 91403, 2017, UTS
- Medical Devices and Diagnostics (Biophotonics I; Biophotonics II), 91705, 2017, UTS
- Nanophotonics (Plasmonic waveguides and resonators), 68513, 2018, UTS
- Advanced Nanomaterials (Module 3: Optical tweezers), 68002, 2019, UTS

Laboratory demonstrator / Teaching assistant

- Optoelectronics Laboratory I, PHYS 9761, Semester 1 2010, UNSW
- Optoelectronics Laboratory II, PHYS 9762, Semester 2 2010, UNSW
- Brave New World, GENS4015, Semester 1 2011, UNSW
- Laser and Spectroscopy Laboratory, PHYS3770, Semester 1 2010-2013, UNSW
- Photonics Laboratory, PHYS3780, Semester 2 2010-2013, UNSW
- Foundations of Physics, 68101, 2019, UTS
- Physics in Action, 68201, 2019, UTS

Research internship

- 3rd-year students
- Capstone project

Other professional activities

Under my co-supervision, three honours students (UNSW) and one master student (the University of Sydney) completed their degrees in the field of optical trapping; one co-supervised PhD student completed his degree in the field of photonics application of upconversion nanoparticles; and one co-supervised PhD student completed his degree in the field of optimizing upconversion nanoparticles for nanoscale barcoding. I am currently a principal supervisor of four PhD students in the field of super-resolution imaging and optical tweezers. Under my supervision, my student obtained a ***Prizmatix Young Investigator Award*** in SPIE Photonics West 2019. I am also a co-supervisor of one PhD student in the field of optical characterisation of nanoparticles, and one PhD student on UV enhanced nanoparticles. Under my supervision, my PhD students Yongtao Liu and Baolei Liu were the winners of UTS 2020 HDR Student Paper of the Month.

Refereed Journal Articles

1. *Nanoscale Advances* (2021) – Baolei Liu, Jiayan Liao, Yiliao Song, Chaohao Chen, Lei Ding, Jie Lu, Jiajia Zhou*, **Fan Wang***, "Multiplexed structured illumination super-resolution imaging with lifetime-engineered upconversion nanoparticles", accepted, [IF: 4.38]. [**published as the front cover**]
2. *IEEE Photonics Journal* (2021) – Baolei Liu, **Wang, Fan***, Chaohao Chen, David McGloin*, "Single-Pixel Diffuser Camera", vol.13, 6, 7800205. [IF: 2.443]
3. *Optica* (2021) – Baolei Liu, **Wang, Fan***, Chaohao Chen, Fei Dong, David McGloin*, "Self-evolving ghost imaging", vol. 8, 10, 1340-1349. [IF: 11.1]
4. *Nano Letters* (2021) – Jiayan Liao, Jiajia Zhou*, Yiliao Song, Baolei Liu, Yinghui Chen, **Fan Wang**, Chaohao Chen, Jun Lin, Xueyuan Chen, Jie Lu* and Dayong Jin*, "Preselectable Optical Fingerprints of Heterogeneous Upconversion Nanoparticles", vol. 21, 18, 7659-7668 [IF: 11.2]
5. *Nature Nanotechnology* (2021) – Shan, Xuchen†, **Wang, Fan***†, Wang, Dejiang, Wen, Shihui, Chen, Chaohao, Di, Xiangjun, Nie, Peng, Liao, Jiayan, Liu, Yongtao, Ding, Lei, Reece, Peter* and Jin, Dayong*, "Optical tweezers beyond refractive index mismatch using highly doped nanoparticles", vol 16 (5), 531-537. [IF: 31.5]
6. *Nature Communication* (2021) – Liu, Yongtao†, Zhou, Zhiguang†, **Wang, Fan***†, Kewes, Günter, Wen, Shihui, Burger, Sven, Wakiani, Majid Ebrahimi, Xi, Peng, Yang, Jiong, Yang, Xusan, Benson, Oliver* & Jin, Dayong*, "Axial Localization and Tracking of Self-interference Nanoparticles by Lateral Point Spread Functions", 12(1), 1-9. [IF: 12.1]
7. *Advanced Materials* (2021) – Chaohao Chen, Baolei Liu, Yongtao Liu, Jiayan Liao, Xuchen Shan, **Fan Wang***, and Dayong Jin*, "Heterochromatic Nonlinear Optical Responses in Upconversion Nanoparticles for Super-resolution Nanoscopy", vol 33 (23), 2008847. [IF: 27]
8. *Nanoscale* (2020) –L. Gao, X. Shan, X. Xu, Y. Liu, B. Liu, S. Li, S. Wen, C. Ma, D. Jin, and **F. Wang***, "Video-rate upconversion display from optimized lanthanide ion doped upconversion nanoparticles", 2020,12, 18595-18599. [**published as a cover paper**]
9. *Nano Letters* (2020) – B. Liu, C. Chen, X. Di, J. Liao, S. Wen, Q.P. Su, X. Shan, Z.Q. Xu, L.A. Ju, C. Mi, **F. Wang***, and D. Jin*, "Upconversion Nonlinear Structured Illumination Microscopy", 20, 7, 4775–4781. [**published as a cover paper**]
10. *Small* (2020) – Y. Liu, **F. Wang***, H. Lu, S. Wen, C. Chen, X. Shan, G. Fang, M. Stenzel and D. Jin, "Super-resolution mapping of single nanoparticles inside spheroids", 16 (6), 1905572. [IF: 10.856; **published as a cover paper**]
11. *APL Photonics* (2019) – X.X. Xu, Z. Zhou, Y. Liu, S. Wen, Z. Guo, L. Gao and **F. Wang***, "Optimizing passivation shell thickness of single upconversion nanoparticles using a time-resolved spectrometer", vol. 4, 026104, 2019.
12. *Nanoscale* (2019) –X. Yuan*, L. Li, Z. Li, **F. Wang***, N. Wang, L. Fu, J. He, H.H. Tan and C. Jagadish, "Unexpected Benefits of Stacking Faults on the Electronic Structure and Optical Emission in Wurtzite GaAs/GaInP Core/Shell Nanowires", in press. [IF: 7.2]

13. *Nature Communication* (2018) – C. Chen†, **F. Wang***†, S. Wen, Q. P. Su, M. C.L. Wu, Y. Liu, B. Wang, D. Li, X. Shan, M. Kianinia, I. Aharonovich, M. Toth, S. P. Jackson, P. Xi and D. Jin, "Multi-photon near-infrared emission saturation nanoscopy using upconversion nanoparticles", vol. 9(1), 4, 2018. [IF: 12.1]
14. *Light: Science & Applications* (2018) - **F. Wang***, S. Wen, H. He, B. Wang, Z. Zhou, O. Shimoni, D. Jin*, "Microscopic inspection and tracking of single upconversion nanoparticles in living cells", vol. 7(4), 18007, 2018, [IF: 14.1, citation:11; ranked **3**/92 in Optics, published by Nature publication group; **published as the front cover**]
15. *Nano Letters* (2017) - C. Ma, X. Xu*, **F. Wang***, Z. Zhou, D. Liu, J. Zhao, M. Guan, C. I. Lang and D. Jin*, "Optimal Sensitizer Concentration in Single Upconversion Nanocrystals", vol. 17(5), pp.2858-2864, 2017, (IF**:** 12.1]
16. *Nano Letters* (2015) - **F. Wang***, Q. Gao, K. Peng, Y. Guo, Z. Li, L. Fu, L.M. Smith, H. H. Tan and C. Jagadish, "Spatially Resolved Doping Concentration and Nonradiative Lifetime Profiles in Single Si-Doped InP Nanowires Using Photoluminescence Mapping", vol. 15, pp.3017-3023, 2015. [IF: 12.1]
17. *Nano Letters* (2013) - **F. Wang**, W. J. Toe, W. M. Lee, D. McGloin, M. Gao, H. H. Tan, C. Jagadish and P.J. Reece*, "Resolving Stable Axial Trapping Points of Nanowires in an Optical Tweezers using Photoluminescence Mapping", vol. 13, pp.1185-1191, 2013. [IF: 12.1]
18. *Nano Letters* (2011) - **F. Wang**, P. J. Reece*, S. Paiman, M. Gao, H. H. Tan and C. Jagadish, "Nonlinear Optical Processes in Optically Trapped InP Nanowires", vol. 11, pp.4149-4153, 2011. [IF: 12.1]
19. *Nature Communication* (2020) – Y. Shang, J. Zhou, Y. Cai, **F. Wang**, A.F. Bravo, C. Yang, L. Jiang & D. Jin, "Low threshold lasing emissions from a single upconversion nanocrystal", vol. 11, 6156
20. *Nature Communication* (2020) – S. Wen, Y. Liu, **F. Wang**, G. Lin, J. Zhou, B. Shi, YD. Suh, D. Jin, "Nanorods with multidimensional optical information beyond the diffraction limit", vol. 11(1), 1-8
21. *Light: Science & Applications* (2020) – A. Sharma, L. Zhang, O. Tollerud, M. Dong, Y. Zhu, R. Halbich, T. Vogl, K. Liang, H T. Nguyen, **F. Wang**, S. Sanwlani, S. K. Earl, D. Macdonald, P. K. Lam, J. A. Davis and Y. Lu, "Supertransport of excitons in atomically thin organic semiconductors at the 2D quantum limit", vol. 9, 116, 2020
22. *Chemistry of Materials* (2019) – C. Mi, J. Zhou*, **F. Wang**, G. Lin, and D. Jin, "Ultra-Sensitive Ratiometric Nanothermometer with Large Dynamic Range and Photostability", in press. [IF: 10.159]
23. *Nature Photonics* (2018) - J. Zhou*, S. Wen, J. Liao, C. Clarke, S. Abbas, W. Ren, C. Mi, **F. Wang** and D. Jin*, "Activating the Surface Dark Layer of Upconversion Nanoparticles in a Thermal Field", vol. 12(3), pp.154-158, 2018. [IF: 37.9; citations: 31]
24. *Nature Photonics* (2019) – Y. Gu, Z. Guo, W. Yuan, M. Kong, Y, Liu, Y. Liu, Y. Gao, W. Feng, **F. Wang**, J. Zhou, D. Jin, and F. Li, "High-sensitivity imaging of time-domain near-infrared light transducer at 1 mW cm-2 irradiance", in press, 2019. [IF: 37.9].
25. Progress in Photovoltaics: Research and Applications (2019) – Q. Gao, Z. Li, L. Li, K. Vora, Z. Li, A. Alabadla, **F. Wang**, Y. Guo, K. Peng, Y.C. Wenas, S. Mokkapati, F. Karouta, H.H. Tan, C. Jagadish and L. Fu, "Axial p‐n junction design and characterization for InP nanowire array solar cells", vol. 27, 3 p237-244, 2019. [IF: 7.776]
26. *Journal of Materials Chemistry A* (2019) – L. Wang, D. Cui, L. Ren, J. Zhou, **F. Wang**, G. Casillas, X. Xu, G. Peleckis, W. Hao, J. Ye, S.X. Dou, D. Jin, Y. Du*, "Boosting NIR-driven photocatalytic water splitting by constructing 2D/3D epitaxial heterostructures", vol.7, 13629-13634, 2019. [IF: 10.733]
27. *Nanoscale* (2019) –C. Mi, J. Zhou, **F. Wang** and D. Jin, "Thermally enhanced NIR-NIR anti-Stokes emission in rare earth doped nanocrystals", accepted. [IF:7.2]
28. *Nanomaterials (2019)* – F. Mirnajafizadeh, D. Ramsey, S. McAlpine, **F. Wang**, J. Stride, "Nanoparticles for Bioapplications: Study of the Cytotoxicity of Water Dispersible CdSe(S) and CdSe(S)/ZnO Quantum Dots", vol. 9, 465, 2019. [IF: 3.5]
29. *Nature Communications* (2018) - M. Kianinia, C. Bradac, B. Sontheimer, **F. Wang**, T.T. Tran, M. Nguyen, S. Kim, Z.Q. Xu, D. Jin, A.W. Schell, C.J. Lobo, I. Aharonovich and M. Toth, "All-optical control and super-resolution imaging of quantum emitters in layered materials", vol. 9(1), 74, 2018, [IF: 12.1, citations: 8]
30. *Nano Letters* (2018) – W.-Z. Xu, F.-F. Ren, D. Jevtics, A. Hurtado, L. Li, Q. Gao, J. Ye, **F. Wang**, B. Guilhabert, L. Fu, H. Lu, R. Zhang, H.H. Tan, M.D. Dawson, C. Jagadish, "Vertically Emitting Indium Phosphide Nanowire", vol. 6, pp.3414-3420, 2018. [IF: 12.1]

31. *Nanoscale* (2018) – C. Clarke, D. Liu, **F. Wang**, Y. Liu, C. Chen, C. Ton-That, X. Xu and D. Jin, " Large-scale dewetting assembly of gold nanoparticles for plasmonic enhanced upconversion nanoparticles", vol. 10, pp.6270-6276, 2018. [IF: 7.2].
32. *Nature* (2017) - Y. Liu, Y. Lu*, X. Yang, X. Zheng, S. Wen, **F. Wang**, X. Vidal, J. Zhao, D. Liu, Z. Zhou, C. Ma, J. Zhou, J.A. Piper, P. Xi* and D. Jin*, "Amplified stimulated emission in upconversion nanoparticles for super-resolution nanoscopy", vol. 543, pp.229-233, 2017. [IF: 40; citations: **143**]
33. *Laser Physics* (2017) –X. Li, J. Qian, R. Zhao, **F. Wang**, Z. Wang, " Dual-wavelength mode-locked fiber laser based on tungsten disulfide saturable absorber." vol 12, no. 27 (2017): 125802, [IF: 1.3].
34. *Nanoscale* (2017) – L. Wang, L. Ren, D. Mitchell, G. Casillas-Garcia, W. Ren, C. Ma, X.X. Xu, S. Wen, **F. Wang**, J. Zhou, X. Xu, W. Hao, S.X. Dou, Y. Du, "Enhanced Energy Transfer in Heterogeneous Nanocrystals for near Infrared Upconversion Photocurrent Generation.", vol. 9, no. 47 (2017): 18661-67. [IF: 7.2].
35. *Nanoscale* (2017) –H.A. Fonseka, A. S. Ameruddin, P. Caroff, D. Tedeschi, M. D. Luca, F. Mura, Y. Guo, M. Lysevych, **F. Wang**, H. H. Tan and C. Jagadish, "InP-$In_xGa_{1-x}As$ Core-Multi-Shell Nanowire Quantum Wells with Tunable Emission in the 1.3 – 1.55 μm Wavelength Range", vol. 9, no. 36 (2017). [IF: 7.2]
36. *ACS Photonics* (2017) –Y. Yang, Y. Zhu, J. Zhou, **F. Wang**, J. Qiu, "Integrated Strategy for High Luminescence Intensity of Upconversion Nanocrystals", vol 4, 1930-1936. [IF: 6.9]
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