

PUBLICATIONS

Refereed Archival Journal Publications

1. Zhongya Qin, Zhentao She, Congping Chen, Wanjie Wu, Jackie K.Y. Lau, Nancy Y. Ip and **Jianan Y. Qu**, "Deep tissue multi-photon imaging using adaptive optics with direct focus sensing and shaping", *Nature Biotechnology*, (in press). doi: <https://doi.org/10.1101/2021.08.04.455159>
2. Wanjie Wu, Sicong He, Junqiang Wu, Congping Chen, Xuesong Li, Kai Liu and **Jianan Y. Qu**, "Long-term in vivo imaging of mouse spinal cord through an optically cleared intervertebral window", *Nature Communications*, V. 13, 1959 (2022). <https://doi.org/10.1038/s41467-022-29496-x>
3. Wanjie Wu, Xuesong Li., **Janan Qu**, and **Sicong He**, "in vivo Imaging of Biological Tissues with Combined Two-Photon Fluorescence and Stimulated Raman Scattering Microscopy", *J. Vis. Exp. (JoVE)* (178), e63411, <https://dx.doi.org/10.3791/63411> (2021)
4. Congping Chen, Zhentao She, Peng Tang, Zhongya Qin, Jufang He and **Jianan Y. Qu**, "Study of neurovascular coupling by using mesoscopic and microscopic imaging", *iScience*, V. 24, 10, 22 October 2021, 103176 <https://doi.org/10.1016/j.isci.2021.103176>
5. Lidan Zeng, Xuesong Li, Christopher B. Preusch, Gary J. He, Ningyi Xu, Tom H. Cheung, Jianan Qu and Ho Yi Mak, "Nuclear receptors NHR-49 and NHR-79 promote peroxisome proliferation to compensate for aldehyde dehydrogenase deficiency in *C. elegans*", *PLoS Genetics*, 17(7): e1009635. (2021) <https://doi.org/10.1371/journal.pgen.1009635>
6. Congping Chen, Zhongya Qin, Sicong He, Shaojun Liu, Shun-Fat Lau, Wanjie Wu, Dan Zhu, Nancy Y. Ip and **Jianan Y. Qu**, "High-resolution two-photon transcranial imaging of brain using direct wavefront sensing", *Photonics Research*, Vol. 9, Issue 6, pp. 1144-1156 (2021) <https://doi.org/10.1364/PRJ.420220>
7. Ye Wang, Wing-Yu Fu, Kit Cheung, Kwok-Wang Hung, Congping Chen, Hongyan Geng, Wing-Ho Yung, Jianan Y. Qu, Amy K. Y. Fu and Nancy Y. Ip, "Astrocyte-secreted IL-33 mediates homeostatic synaptic plasticity in the adult hippocampus", *Proceedings of the National Academy of Sciences of the United States of America*, V.118, (2021), <https://doi.org/10.1073/pnas.2020810118>
8. Zhongya Qin, Congping Chen, Sicong He*, Ye Wang, Kam Fai Tam, **Nancy Y. Ip** and **Jianan Y. Qu**, "Adaptive optics two-photon endomicroscopy enables deep brain imaging at synaptic resolution over large volumes", *Science Advances*, 30 Sep 2020: Vol. 6, no. 40, eabc6521 DOI: 10.1126/sciadv.abc6521
9. Sicong He*, Jin Xu, **Jianan Y. Qu** and **Zilong Wen**, "Lightening the way of hematopoiesis: Infrared laser-mediated lineage tracing with high spatial-temporal resolution", *Experimental Hematology*, V, 3-7 (2020)
10. Miao Liu, Sicong He*, Lixin Cheng, Jianan Qu and **Jiang Xia**, "Phase-Separated Multienzyme Biosynthesis", *Biomacromolecules* V.21, 6, 2391–2399 (2020)
11. Zhongya Qin, Sicong He*, Chao Yang, Jasmine Sum-Yee Yung, Congping Chen, Christopher Kai-Shun Leung, Kai Liu and **Jianan Y. Qu**, "Adaptive optics two-photon microscopy enables near-diffraction-limited and functional retinal imaging in vivo", *Light: Science & Applications*, (2020)9:79, <https://doi.org/10.1038/s41377-020-0317-9> PDF
12. Shun-Fat Lau, Congping Chen, Wing-Yu Fu, Jianan Y. Qu, Tom H. Cheung, Amy K.Y. Fu, **Nancy Y. Ip**, "IL-33-PU.1 Transcriptome Reprogramming Drives Functional State Transition and Clearance Activity of Microglia in Alzheimer's Disease", *Cell Reports*, V.31, 107530 (2020)
13. Sicong He*, Ye Tian, Shachuan Feng, Yi Wu, Xinwei Shen, Kani Chen, Yingzhu He, Qiqi Sun, Xuesong Li, Jin Xu, **Zilong Wen**, **Jianan Y. Qu**, "In vivo single-cell lineage tracing in zebrafish using high-resolution infrared laser-mediated gene induction microscopy", *eLife* 2020;9:e52024, DOI: 10.7554/eLife.52024
14. Sicong He*, Xiuqing Wei, Zhongya Qin, Congping Chen, Zhenguo Wu and **Jianan Y. Qu**, "In vivo study of metabolic dynamics and heterogeneity in brown and beige fat by label-free multiphoton redox and fluorescence lifetime microscopy", *Journal of Biophotonics*, 2019;e201960057. <https://doi.org/10.1002/jbio.201960057>
15. Wei Kang, Tian Ma, Min Liu, Jiale Qu, Zhenjun Liu, Huawei Zhang, Bin Shi, Shuai Fu, Juncai Ma, Louis Tung Faat Lai, Sicong He*, Jianan Qu, Shannon Wing-Ngor Au, Byung Ho Kang, Wilson Chun Yu Lau, Zixin Deng, **Jiang Xia** & **Tiangang Liu**, "Modular enzyme assembly for enhanced cascade biocatalysis and metabolic flux", *Nature Communications*, (2019) 10:4248
16. Zhe Cao, Yan Hao, Chun Wing Fung, Yiu Yiu Lee, Pengfei Wang, Xuesong Li, Kang Xie, Wen Jiun Lam, Yifei Qiu, Ben Zhong Tang, Guanghou Shui, Pingsheng Liu, Jianan Qu, Byung-Ho Kang and **Ho Yi Mak**, "Dietary fatty acids promote lipid droplet diversity through seipin enrichment in an ER subdomain", *Nature Communications*, (2019) 10:2902
17. Xuesong Li, Yan Li, Meijuan Jiang, Wanjie Wu, Sicong He, Congping Chen, Zhongya Qin, Ben Zhong Tang, Ho Yi Mak, and **Jianan Y. Qu**, "Quantitative Imaging of Lipid Synthesis and Lipolysis Dynamics in *Caenorhabditis elegans* by Stimulated Raman Scattering Microscopy", *Analytical Chemistry*, Vol.91 (3), 2279-2287 (2019)
18. Congping Chen, Zhuoyi Liang, Biao Zhou, Xuesong Li, Caleb Lui, Nancy Y. Ip and **Jianan Y. Qu**, "In Vivo Near-infrared two-photon imaging of amyloid plaques in deep brain of Alzheimer's disease mouse model", *ACS Chemical Neuroscience*, August 1, 2018 (2018), Vol. 9, No.12, 3128-3136 (2018)

19. Zhongya Qin, Qiqi Sun, Yue Lin, Sicong He, Xuesong Li, Congping Chen, Wanjie Wu, Yi Luo and **Jianan Y. Qu**, "New fluorescent compounds produced by femtosecond laser surgery in biological tissues: the mechanisms", *Biomedical Optics Express*, Vol. 9, No. 7, 3374-90 (2018)
20. Guangle Niu, Ruoyao Zhang, John PC Kwong, Jacky WY Lam, Congping Chen, Jianguo Wang, Yuncong Chen, Xing Feng, Ryan TK Kwok, Herman H-Y Sung, Ian D Williams, Mark RJ Elsegood, Jianan Qu, Chao Ma, Kam Sing Wong, Xiaoqiang Yu, **Ben Zhong Tang**, "Specific Two-Photon Imaging of Live Cellular and Deep-Tissue Lipid Droplets by Lipophilic AIEgens at Ultralow Concentration", *Chemistry of Materials*, V.30 (14), 4778-4787 (2018)
21. Sicong He*, Jiahao Chen, Yunyun Jiang, Yi Wu, Lu Zhu, Wan Jin, Changlong Zhao, Tao Yu, Tienan Wang, Shuting Wu, Xi Lin, Jianan Y Qu, Zilong Wen, Wenqing Zhang, **Jin Xu**, "Adult zebrafish Langerhans cells arise from hematopoietic stem/progenitor cells", *eLife*, DOI: <https://doi.org/10.7554/eLife.36131.001> (2018)
22. Sicong He, Yitai An, Xuesong Li, Xiuqing Wei, Qiqi Sun, Zhenguo Wu and **Jianan Y. Qu**, "In vivo metabolic imaging and monitoring of brown and beige fat", *Journal of Biophotonics*, DOI: 10.1002/jbio.201800019 (2018)
23. Qiqi Sun, Zhongya Qin, Wanjie Wu, Yue Lin, Congping Chen, Sicong He, Xuesong Li, Zhenguo Wu, Yi Luo and **Jianan Y. Qu**, "In vivo imaging-guided microsurgery based on femtosecond laser produced new fluorescent compounds in biological tissues", *Biomedical Optics Express*, Vol. 9, No. 2, 581-90 (2018)
24. Meijuan Jiang, Ryan T. K. Kwok, Xuesong Li, Chen Gui, Jacky W. Y. Lam, Jianan Qu and **Ben Zhong Tang**, "A simple mitochondrial targeting AIEgen for image-guided two-photon excited photodynamic therapy", *Journal of Materials Chemistry B*, Vol. 6, No.17, 2557-2565 (2018)
25. Xuesong Li, Meijuan Jiang, Jacky W. Y. Lam, **Ben Zhong Tang** and **Jianan Y. Qu**, "Mitochondrial Imaging with Combined Fluorescence and Stimulated Raman Scattering Microscopy Using a Probe of the Aggregation-Induced Emission Characteristic", *Journal of the American Chemical Society*, Vol. 139, No.47, 17022-17030 (2017)
26. Ye Tian, Jin Xu, Shachuan Feng, Sicong He, Shizheng Zhao, Lu Zhu, Wan Jin, Yimei Dai, Lingfei Luo, Jianan Y. Qu, and Zilong Wen1, "The first wave of T lymphopoiesis in zebrafish arises from aorta endothelium independent of hematopoietic stem cells", *Journal of Experimental Medicine*, Vol. 214, No.11, 3347-3360 (2017)
27. Alexander Nicol, Ryan T. K. Kwok, Congping Chen, Weijun Zhao, Ming Chen, Jianan Qu and Ben Zhong Tang, "Ultrafast Delivery of Aggregation-Induced Emission Nanoparticles and Pure Organic Phosphorescent Nanocrystals by Saponin Encapsulation", *Journal of the American Chemical Society*, V.139, 14792-14799 (2017)
28. Sicong He, Wenqian Xue, Zhigang Duan, Qiqi Sun, Xuesong Li, Huiyan Gan, **Jiandong Huang** and **Jianan Y. Qu**, "Multimodal nonlinear optical microscopy reveals critical role of kinesin-1 in cartilage development", *Biomedical Optics Express*, Vol. 8, 1771-1782 (2017)
29. Tingzhong Li, Sicong He, Jianan Qu, Hao Wu, Shuizhu Wu, Zujin Zhao, Anjun Qin, Rongrong Hu and Ben Zhong Tang, "Thermoresponsive AIE polymers with fine-tuned response temperature", *Journal of Materials Chemistry C*, V.4 (14), 2964-2970 (2016)
30. Wai-Leung Suen, Jun Jiang, Hoi-Sang Wong, Jianan Qu and **Ying Chau**, "Examination of Effects of Low-Frequency Ultrasound on Scleral Permeability and Collagen Network", *Ultrasound in Medicine and Biology*, V.42, 2650-2661 (2016)
31. Xuesong Li, Wen Jiun Lam, Zhe Cao, Yan Hao, Qiqi Sun, Sicong He, **Ho Yi Mak** and **Jianan Y. Qu**, "Integrated femtosecond stimulated Raman scattering and two-photon fluorescence imaging of subcellular lipid and vesicular structures", *Journal of Biomedical Optics*, V. 20, 110501 (2015)
32. Qiqi Sun, Wei Zheng, Jiannong Wang, Yi Luo and **Jianan Y. Qu**, "Mechanism of two-photon excited hemoglobin fluorescence emission", *Journal of Biomedical Optics*, V. 20, 105014 (2015)
33. Jin Xu, Lu Zhu, Sicong He, Yi Wu, Wan Jin, Tao Yu, **Jianan Y. Qu** and **Zilong Wen**, "Temporal-Spatial Resolution Fate Mapping Reveals Distinct Origins for Embryonic and Adult Microglia in Zebrafish", *Developmental Cell*, V. 34, 632-641 (2015)
34. Liguang Jiang, Yan Zeng, Qiqi Sun, Yueru Sun, Zhihong Guo, **Jianan Y. Qu** and **Shuhuai Yao**, "Microsecond Protein Folding Events Revealed by Time-Resolved Fluorescence Resonance Energy Transfer in a Microfluidic Mixer", *Analytical Chemistry*, V. 87, 5589-95 (2015)
35. Sijie Chen, Yuning Hong, Yan Zeng, Qiqi Sun, Yang Liu, Engui Zhao, Gongxun Bai, Jianan Qu, Jianhua Hao and **Ben Zhong Tang**, "Mapping Live Cell Viscosity with an Aggregation-Induced Emission Fluorogen by Means of Two-Photon Fluorescence Lifetime Imaging", *Chem. Eur. J.*, 2015, 21, 4315-4320 (2015)
36. Sicong He, Cong Ye, Qiqi Sun, Christopher K.S. Leung and **Jianan Y. Qu**, "In vivo Label-free nonlinear optical imaging of mouse retina", *Biomedical Optics Express*, V.6, No.1 (2015)
37. Yan Zeng, Bo Yan, Jin Xu, Qiqi Sun, Sicong He, Jun Jiang, Zilong Wen and **Jianan Y. Qu**, "In vivo Nonlinear Optical Imaging of Immune Responses: Tissue Injury and Infection", *Biophysical Journal*, V.107, Issue of Nov. 18 (2014)
38. Yan Zeng, Bo Yan, Qiqi Sun, Sicong He, Jun Jiang, Zilong Wen and **Jianan Y. Qu**, "In vivo micro-vascular imaging and flow cytometry in zebrafish using two-photon excited endogenous fluorescence", *Biomedical Optics Express*, V.5, 653-663 (2014)

39. *Qiqi Sun*, Yanfeng Li, *Sicong He*, Chenghao Situ, Zhenguo Wu, and **Jianan Y. Qu**, "Label-free multimodal nonlinear optical microscopy reveals fundamental insights of skeletal muscle development", *Biomedical Optics Express*, V.5, 158-166 (2014)
40. *Yan Zeng*, Bo Yan, *Qiqi Sun*, *Seng Khoon Teh*, *Wei Zhang*, Zilong Wen, and **Jianan Y. Qu**, "Label-free in vivo imaging of human leukocytes using two-photon excited endogenous fluorescence", *Journal of Biomedical Optics*, V.18, 040103 (2013)
41. *Seng Khoon Teh**, *Wei Zheng**, Shuxia Li, *Dong Li*, *Yan Zeng*, **Yanqi Yang**, and **Jianan Y. Qu**, "Multimodal nonlinear optical microscopy improves the accuracy of early diagnosis of squamous intraepithelial neoplasia", *Journal of Biomedical Optics*, V.18, 036001 (2013)
42. *Yan Zeng*, Yun Wu, Dong Li, Wei Zheng, Wen-Xiong Wang and **Jianan Y. Qu**, "Two-photon excitation chlorophyll fluorescence lifetime imaging: a rapid and noninvasive method for in vivo assessment of cadmium toxicity in a marine diatom *Thalassiosira weissflogii*", *Planta*, Published online: 18 July, 2012
43. *Yan Zeng*, Jin Xu, Dong Li, Li Li, Zilong Wen, and **Jianan Y. Qu**, "Label-free in vivo flow cytometry in zebrafish using two-photon autofluorescence imaging", *Optics Letters*, 2012, July 15 issue (2012)
44. Liguang Jiang, *Yan Zeng*, Hongbo Zhou, **Jianan Y. Qu**, **Shuhuai Yao**, "Visualizing millisecond chaotic mixing dynamics in microdroplets: A direct comparison of experiment and simulation", *Biomicrofluidics*, V6, 012810 (2012)
45. Yun Wu, *Yan Zeng*, Jianan Y. Qu, **Wen-Xiong Wang**, "Mercury effects on *Thalassiosira weissflogii*: Applications of two-photon excitation chlorophyll fluorescence lifetime imaging and flow cytometry", *Aquatic Toxicology*, V. 110-111, 133-140 (2012)
46. *Wei Zheng*, *Dong Li*, Shuxia Li, *Yan Zeng*, **Yanqi Yang** and **Jianan Y. Qu**, "Diagnostic value of nonlinear optical signals from collagen matrix in the detection of epithelial precancer", *Optics Letters*, V.36, 3620-3623 (2011)
47. *Dong Li*, *Wei Zheng*, *Wei Zhang*, *Seng Khoon Teh*, *Yan Zeng*, Yi Luo and **Jianan Y. Qu**, "Time-resolved detection enables standard two-photon fluorescence microscopy for in vivo label-free imaging of microvasculature in tissue", *Optics Letter*, 2638-2640 (2011)
48. *Yan Zeng*, Liguang Jiang, *Wei Zheng*, *Dong Li*, Shuhuai Yao and **Jianan Y. Qu**, "Quantitative imaging of mixing dynamics in microfluidic droplets using two-photon fluorescence lifetime imaging", *Optics Letters*, V.36, 2236-2238 (2011)
49. *Dong Li*, *Wei Zheng*, *Yan Zeng*, Yi Luo and **Jianan Y. Qu**, "Two-photon excited hemoglobin fluorescence provides contrast mechanism for label-free imaging of microvasculature in vivo", *Optics Letters*, V.36, 834-836 (2011)
50. *Wei Zheng*, *Dong Li*, *Yan Zeng*, Yi Luo and **Jianan Y. Qu**, "Two-photon excited hemoglobin fluorescence", *Biomedical Optics Express*, V.2, 71-79 (2011)
51. *Dong Li*, *Wei Zheng*, *Yan Zeng* and **Jianan Y. Qu**, "In vivo and simultaneous multimodal imaging: integrated multiplex CARS and two-photon microscopy", *Applied Physics Letters*, V.97, 223702 (2010)
52. Zhe Wang, *Tao Wu*, Lin Shi, Lin Zhang, *Wei Zheng*, Jianan Y. Qu, Ruifang Niu and **Robert Z. Qi**, "Conserved Motif of CDK5RAP2 Mediates Its Localization to Centrosomes and the Golgi Complex", *Journal of Biological Chemistry*, V. 285, 22658 (2010) PDF
53. *Wei Zheng*, *Dong Li* and **Jianan Y. Qu**, "Monitoring changes of cellular metabolism and micro-viscosity in vitro based on time-resolved endogenous fluorescence and its anisotropy decay dynamics", *Journal of Biomedical Optics*, V.15, 037013 (2010)
54. *Tao T. Wu*, Tak-Hong Cheung, So-Fan Yim, and **Jianan Y. Qu**, "Clinical study of quantitative diagnosis of early cervical cancer based on the classification of acetowhitening kinetics", *Journal of Biomedical Optics*, V.15, 026001 (2010)
55. *Dong Li*, *Wei Zheng* and **Jianan Y. Qu**, "Imaging of epithelial tissue *in vivo* based on excitation of multiple endogenous nonlinear optical signals", *Optics Letters*, V.34, 2853-2855 (2009)
56. *Dong Li*, **Mildred S. Yang**, Tao Lin, *Wei Zheng* and **Jianan Y. Qu**, "Study of cadmium induced cytotoxicity using two-photon excitation endogenous fluorescence microscopy", *Journal of Biomedical Optics*, V.14, 054028 (2009)
57. *Dong Li*, *Wei Zheng* and **Jianan Y. Qu**, "Two-photon autofluorescence microscopy of multicolor excitation", *Optics Letters*, V.34, 202-204 (2009)
58. *Dong Li*, *Wei Zheng* and **Jianan Y. Qu**, "Time-resolved spectroscopic imaging reveals the fundamentals of cellular NADH fluorescence", *Optics Letters*, V.33, 2365-2367 (2008)
59. *Wei Zheng*, *Dong Li*, *Yicong Wu* and **Jianan Qu**, "Autofluorescence of epithelial tissue: single-photon versus two-photon excitation", *Journal of Biomedical Optics*, V.13, 054010 (2008).
60. *Tao T. Wu*, Tak-Hong Cheung, So-Fan Yim and **Jianan Y. Qu**, "Optical imaging of cervical precancerous lesions based on active stereo vision and motion tracking", *Optics Express*, V.16, 11224-11230 (2008)
61. **M. Xu**, *Tao T. Wu* and **Jianan Y. Qu**, "Unified Mie and fractal scattering by biological cells and subcellular structures: theory and application in elastic light scattering spectroscopy", *Journal of Biomedical Optics*, V.13, 024015 (2008)

62. **M.S. Yang, D. Li, T. Lin, J.J. Zheng, W. Zheng, Jianan Y. Qu**, "Increase in intracellular free/bound NAD[P]H as a cause of Cd-induced oxidative stress in the HepG2 cells", *Toxicology*, V. 247, 6–10 (2008)
63. **Tao T. Wu and Jianan Y. Qu**, "Optical imaging for medical diagnosis based on active stereo vision and motion tracking", *Optics Express*, V.15, No.16, 10421-10426 (2007)
64. **Tao T. Wu, Jianan Y. Qu and Min Xu**, "Unified Mie and fractal scattering by biological cells and subcellular structures", *Optics Letters*, Vol. 32, No. 16 (2007)
65. **Tao T. Wu and Jianan Y. Qu**, "Assessment of the relative contribution of cellular components to the acetowhitening effect in cell cultures and suspensions using elastic light-scattering spectroscopy", *Applied Optics*, V.46, 4834-4842 (2007)
66. **Yicong Wu, Wei Zheng and Jianan Y. Qu**, "Sensing cell metabolism by time-resolved autofluorescence", *Optics Letters*, V.31, 3122-3124 (2006)
67. **Yicong Wu and Jianan Y. Qu**, "Autofluorescence spectroscopy of epithelial tissues", *Journal of Biomedical Optics*, V.11, 054023 (2006)
68. **Yicong Wu and Jianan Y. Qu**, "Combined depth- and time-resolved autofluorescence spectroscopy of epithelial tissue", *Optics Letters*, V.31, 1833-1835 (2006)
69. **Yicong Wu and Jianan Y. Qu**, "Two-photon autofluorescence spectroscopy and second harmonic generation of epithelial tissue", *Optics Letters*, V.30, 3045-3047 (2005)
70. **Tao T. Wu, Tak Hong Cheung, So Fan Yim, Yick Fu Wong and Jianan Y. Qu**, "Study of dynamic process of acetic acid induced whitening in epithelial tissues at cellular level", *Optics Express*, V.13, 4963-4973 (2005)
71. **Yicong Wu, Peng Xi*, Tak-Hong Cheung, Mei-Yung Yu and Jianan Y. Qu**, "Depth-resolved fluorescence spectroscopy of normal and dysplastic cervical tissue", *Optics Express*, V.13, 382-388 (2005)
72. **Yicong Wu, Peng Xi*, Tak-Hong Cheung, Mei-Yung Yu and Jianan Y. Qu**, "Depth-resolved fluorescence spectroscopy reveals layered structure of tissue", *Optics Express*, V.12, 3218-3223 (2004)
73. **Wumei Lin, Powing Yuen, Xin Yuan, Jonathan Sham, Pengcheng Shi, William I. Wei and Jianan Y. Qu**, "Classification of *in vivo* autofluorescence spectra using support vector machine", *Journal of Biomedical Optics*, V.9, 180-186 (2004)
74. **Tao Wu, T. H. Cheung, K. W. Lo, Mei-Yung Yu and Jianan Y. Qu**, "Preliminary study of detecting neoplastic growth *in vivo* with calibrated autofluorescence imaging", *Optics Express*, V.11, 291-298 (2003)
75. **Manhong Chan, Wumei Lin, Changhe Zhou and Jianan Y. Qu**, "A miniaturized three-dimensional endoscopic imaging system based on active stereovision", *Applied Optics*, V.42, 1888-1898 (2003)
76. **Hanpeng Chang, Jianan Y. Qu, Powing Yuen, Jonathan Sham, Dora Kwang and William I. Wei**, "Light-induced autofluorescence spectroscopy for detection of nasopharyngeal carcinoma *in vivo*", *Applied Spectroscopy*, V. 56, 1361-1367 (2002)
77. **Jianan Y. Qu, Hanpeng Chang and Shenming Xiong**, "Fluorescence spectral imaging for characterization of tissue based on multivariate statistical analysis", *Journal of the Optical Society of America. A*, V19, 1823-1831 (2002)
78. **Jianan Y. Qu and Lan Shao***, "Multiple band-pass-filtering method for improvement on prediction accuracy of linear multivariate analysis", *Applied Spectroscopy*, V.55, 1414-1421 (2001)
79. **Jianan Y. Qu, Hanpeng Chang and Shenming Xiong**, "Optical processing of light induced autofluorescence for characterization of tissue pathology", *Optics Letters*, V.26, 1268-1270 (2001)
80. **Jianan Y. Qu and Jianwen Hua***, "Calibrated fluorescence imaging of tissue *in vivo*", *Applied Physics Letters*, V.78, 4040-4042 (2001)
81. **Jianan Y. Qu and Lan Shao***, "Near-IR Raman instrument for rapid and quantitative measurements of clinically important analytes", *Review of Scientific Instruments*, V.72 2717-2723 (2001)
82. **Jianan Y. Qu, Zhijian Huang* and Jianwen Hua***, "Excitation and collection geometry insensitive fluorescence imaging of tissue-simulating turbid media", *Applied Optics*, V. 39, 3344 – 3356 (2000)
83. **Jianan Y. Qu, Po Wing Yuen, Zhijian Huang*, Dora Kwong, Jonathan Sham, Siu Lung Lee, Wai Kuen Ho, and William I. Wei**, "Preliminary Study of *in vivo* Autofluorescence of Nasopharyngeal Carcinoma and Normal Tissue", *Lasers in Surgery and Medicine*, V. 26, 432-440 (2000)
84. **Jianan Y. Qu, Jianwen Hua* and Zhijian Huang***, "Correction of Geometrical Effects on Fluorescence Imaging of Tissue", *Optics Communications*, V. 176, 319-326 (2000)
85. **Jianan Y. Qu, Zhijian Huang*, and Jianwen Hua***, "Mapping the fluorescence yield on turbid media", *Applied Physics Letters*, V.76, 970-972 (2000)
86. **Jianan Y. Qu, Brian C. Wilson, and David Suria**, "Concentration Measurements of Multiple Analytes in Human Sera by Near-Infrared Laser Raman Spectroscopy", *Applied Optics*, V. 38, 5491-5498 (1999)

87. **Jianan Qu** and Brian C. Wilson, "Monte Carlo modeling studies of the effect of physiological factors and other analytes on the determination of glucose concentration *in vivo* by near-infrared optical absorption and scattering measurements", *Journal of Biomedical Optics*, V.2, 319-25 (1997)
88. **Jianan Qu**, C. MacAulay, S. Lam and B. Palcic, "Laser-induced fluorescence spectroscopy at endoscopy: tissue optics, Monte Carlo modeling, and *in vivo* measurements", *Optical Engineering*, V.34, 3334 - 3343 (1995)
89. M. L. Harries, S. Lam, C. MacAulay, Jianan Qu and B. Palcic, "Diagnostic imaging of the larynx autofluorescence of laryngeal tumors using helium-cadium laser", *J. Laryngology & Otology*, V.109(2),108-10 (1995)
90. **Jianan Qu**, C. MacAulay, S. Lam and B. Palcic, "Optical properties of normal and carcinoma bronchial tissue", *Applied Optics*, V. 33, 7397-405 (1994)
91. **Jianan Qu** and W.E. Bron, "Long-lived phonons", *Physical Review B*, V.48, 6720-6723 (1993)
92. **Jianan Qu**, Z. Zhou, L. Zhu, C. Luo and F. Lin, "Measurement of Gd-atom metastable levels by laser-induced fluorescence spectroscopy", *Chinese Physics*, V. 12, 138-143 (1992)
93. **Jianan Qu**, Z. Zhou, L. Zhu, C. Luo and F. Lin, "Laser-induced fluorescence studies of pulsed uranium ablation by a Nd: YAG Q-switched laser", *Applied Physics Letters*, V. 59, 271-273 (1991)
94. **Jianan Qu**, F. Lin, Z. Zhou, L. Zhu, and C. Luo, "The lineshape of two color three-photon ionization of atomic Ga", *Optics Communications*, V. 78, 153-157 (1990)
95. C. Luo, Jianan Qu, L. Zhu and F. Lin, "Studies on the hyperfine structure of La I in a hollow cathode discharge tube", *Journal of Physics D: Applied Physics*, V. 23, 1327-1328 (1990)
96. C. Luo, Jianan Qu, L. Zhu, and F. Lin, "Hyperfine structure of La I in a cathode discharge tube". *Chinese Physics Letters*, V. 8, 67-70 (1991)
97. **Qu, J.**, Zhou, Z., Zhu, L. and Lin, F. "The studies of lifetime of neutral atom metastable states by laser-induced fluorescence". *Acta Optica Sinica* 11:748, 1991.
98. **Qu, J.**, Zhou, Z., Zhu, L. and Lin, F. "New high-lying levels measurements of atomic Gd by resonant multiphoton ionization". *Chinese Journal of Lasers* 18:560, 1991.
99. **Qu, J.**, Zhou, Z., Zhu, L. and Lin, F. "The studies of two photon transition and isotope separation of atomic Gd by resonance ionization spectroscopy". *Acta Optica Sinica* 10:556, 1990.
100. **Qu, J.**, Qiu, J. and Gong, Z.: "Operating characteristics of a He-Kr ion laser pumped by pulsed hollow cathode discharge". *Chinese Physics: Lasers* (a publication of American Institute of Physics and Optical Society of America) 15:264-265, 1988.