

The Chinese University of Hong Kong
Shun Hing Institute of Advanced Engineering
List of Publications Arising from SHIAE Supported Projects
(Batch 2018)

Project code		Publication
BME-p3-18 Prof. Renjie ZHOU (BME- CUHK)	[1]	[J1] Y. Nie and R. Zhou, "Beating Temporal Phase Sensitivity Limit in Off-axis Interferometry based Quantitative Phase Microscopy," APL Photonics, under revision .
	[2]	[J2] X. Shu, S. Sansare, D. Jin, X. Zeng, K. Y. Tong, R. Pandey, and R. Zhou, "Artificial Intelligence Enabled Reagent-free Imaging Hematology Analyzer," under review .
	[3]	[J3] C. Zheng, D. Jin, Y. He, H. Lin, J. J. Hu, Z. Yaqoob, P. T. C. So, and R. Zhou, "High Spatial and Temporal Resolution Synthetic Aperture Phase Microscopy," Advanced Photonics 2, 065002 (2020) .
	[4]	[J4] M. Niu, G. Luo, X. Shu, F. Qu, S. Zhou, Y. P. Ho, N. Zhao, and R. Zhou, "Portable Quantitative Phase Microscope for Material Metrology and Biological Imaging," Photonics Research 7, 1253-1259 (2020) .
	[5]	[J5] R. Pandey, R. Zhou, R. Bordett, C. Hunter, K. Glunde, I. Barman, T. Valdez, and C. Fincke, "Integration of Diffraction Phase Microscopy and Raman Imaging for Label-free Morpho-molecular Assessment of Live Cells," Journal of Biophotonics 12, e201800291 (2019) .
	[6]	[C1] Y. Nie, Y. Wang, R. Zhou, "Development of high sensitivity quantitative phase microscopy for label-free imaging of nanoscale dynamics," Proc. SPIE 11249, Quantitative Phase Imaging VI, 112491W (14 February 2020).
RNE-p1-18 Prof. Chun CHEN (MAE- CUHK)	[1]	J[1] X. Yu and C. Chen, "A simulation study for comparing the cooling performance of different daytime radiative cooling materials", Solar Energy Materials and Solar Cells, Elsevier, Netherlands, 110459, 1 June 2020.
	[2]	C[1] X. Yu and C. Chen, "A simulation study for comparing the cooling performance and cooling potential of daytime radiative cooling", Proceedings of the 16th Conference of the International Society of Indoor Air Quality & Climate (Indoor Air 2020), South Korea, Paper ABS-0804, 1-4 November 2020.
RNE-p3-18 Prof. LOH Poh Chiang Andrew (EE-CUHK)	[1]	J[1] L. Ming, Z. Xin, W. Liu, and P.C. Loh, "Structure and Modelling of Four-Layer Screen-Returned PCB Rogowski Coil with Very Few Turns for High-Bandwidth SiC Current Measurement," IET Power Electronics, IET, UK, pp. 765-775, 2020
	[2]	J[2] L. Ming, W. Ding, C. Yin, Z. Xin, and P.C. Loh, "A Direct Carried-Based PWM Scheme with Reduced Switching Harmonics and Common-Mode Voltage for Current Source Converter," IEEE Transactions on Power Electronics, IEEE, USA, early access, 2020.
	[3]	C[1] L. Ming, Z. Xin, C. Yin, P.C. Loh, and Y. Liu, "Screen-Returned PCB Rogowski Coil for the Switch Current Measurement of SiC Devices," IEEE Applied Power Electronics Conference and Exposition, IEEE, Anaheim, CA, USA, pp. 958-964, 17-21 March 2019.
	[4]	C[2] L. Ming, Z. Xin, C. Yin, M. Chen, and P.C. Loh, "Integrator Design of the Rogowski Current Sensor for Detecting Fast Switch Current of SiC Devices," IEEE Energy Conversion Congress and Exposition, IEEE, Baltimore, MD, USA, pp. 4551-4557, 29 September-3 October 2019.
	[5]	C[3] L. Ming, W. Ding, P.C. Loh, and Z. Xin, "An FPGA-Based Fault-Tolerant Method for Reliable Current Commutation of Direct Matrix Converter," IEEE International Power Electronics and Motion Control Conference, IEEE, Nanjing, Jiangsu, China, 29 November-2

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Project code		Publication
RNE-p5-18 Prof. Yunlong ZI (MAE-CUHK)	[1]	J[1] J. Fu, G. Xu, C. Li, X. Xia, D. Guan, J. Li, Z. Huang, Y. Zi, "Achieving Ultrahigh Output Energy Density of Triboelectric Nanogenerator in High-Pressure Gas Environment", <i>Advanced Science</i> , Wiley, Germany, DOI: 10.1002/adv.202001757 (2020)
	[2]	J[2] X. Xia, H. Wang, H. Guo, C. Xu, Y. Zi, "On the Material-Dependent Charge Transfer Mechanism of the Contact Electrification", <i>Nano Energy</i> , Elsevier, Netherlands, 78, 105343 (2020)
	[3]	J[3] H. Wang, J. Wang, X. Xia, D. Guan, Y. Zi, "Multifunctional Self-Powered Switch toward Delay-Characteristic Sensors", <i>ACS Applied Materials & Interfaces</i> , American Chemistry Society, United States, 12 (20), 22873-22880 (2020)
	[4]	J[4] L. Wang, Y. Liu, Q. Liu, Y. Zhu, H. Wang, Z. Xie, X. Yu, Y. Zi, "A Metal-Electrode-Free, Fully-Integrated, Soft Triboelectric Sensor Array for Self-Powered Tactile Sensing", <i>Microsystems & Nanoengineering</i> , Nature Publishing Group, United Kingdom, 6 (1), 1-9 (2020)
	[5]	J[5] J. Wang, S. Li, X. Chen, Y. Zi, "High-Voltage Applications of the Triboelectric Nanogenerator - Opportunities Brought by the Unique Energy Technology", <i>MRS Energy & Sustainability</i> , Cambridge University Press, United Kingdom, 6, E17 (2020)
	[6]	J[6] J. Wang, C. Meng, Q. Gu, M.C. Tseng, S.T. Tang, H.S. Kwok, J. Cheng, Y. Zi, "Normally Transparent Tribo-Induced Smart Window", <i>ACS Nano</i> , American Chemistry Society, United States, 14 (3), 3630-3639 (2020)
	[7]	J[7] G. Xu, D. Guan, X. Yin, J. Fu, J. Wang, Y. Zi, "A Coplanar-Electrode Direct-Current Triboelectric Nanogenerator with Facile Fabrication and Stable Output", <i>EcoMat</i> , Wiley, Germany, DOI: 10.1002/eom2.12037 (2020)
	[8]	J[8] Y. Liu, L. Wang, L. Zhao, X. Yu, Y. Zi, "Recent Progress on Flexible Nanogenerators toward Self-Powered Systems", <i>InfoMat</i> , Wiley, Germany, 2 (2), 318-340 (2020)
	[9]	J[9] X. Xia, H. Wang, P. Basset, Y. Zhu, Y. Zi, "Inductor-Free Output Multiplier for Power Promotion and Management of Triboelectric Nanogenerators toward Self-Powered Systems", <i>ACS Applied Materials & Interfaces</i> , American Chemistry Society, United States, 12, 5, 5892-5900 (2020)
	[10]	J[10] J. Wang, H. Wang, X. Li, Y. Zi, "Self-Powered Electrowetting Optical Switch Driven by a Triboelectric Nanogenerator for Wireless Sensing", <i>Nano Energy</i> , Elsevier, Netherlands, 66, 104140 (2019)
	[11]	J[11] J. Fu, X. Xia, G. Xu, X. Li, Y. Zi, "On the Maximal Output Energy Density of Nanogenerators", <i>ACS Nano</i> , American Chemistry Society, United States, 13 (11), 13257-13263 (2019)
	[12]	J[12] X. Xia, J. Fu, Y. Zi, "A universal standardized method for output capability assessment of nanogenerators", <i>Nature Communications</i> , Nature Publishing Group, United Kingdom, 10:4428 (2019)
	[13]	J[13] G. Xu, X. Li, X. Xia, J. Fu, W. Ding, Y. Zi, "On the force and energy conversion in triboelectric nanogenerators", <i>Nano Energy</i> , Elsevier, Netherlands, 59, 154-161 (2019).
	[14]	J[14] H. Wang, Q. Zhu, Z. Ding, Z. Li, H. Zheng, J. Fu, C. Diao, X. Zhang, J. Tian, Y. Zi, "A fully-packaged ship-shaped hybrid nanogenerator for blue energy harvesting toward seawater self-desalination and self-powered positioning", <i>Nano Energy</i> , Elsevier, Netherlands, 57, 616-624 (2019).

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RNE-p5-18 Prof. Yunlong ZI (MAE-CUHK)	[15]	J[15] F. Chen, Y. Wu, Z. Ding, X. Xia, S. Li, H. Zheng, C. Diao, G. Yue, Y. Zi, “A Novel Triboelectric Nanogenerator Based on Electrospun Polyvinylidene Fluoride Nanofibers for Effective Acoustic Energy Harvesting and Self-powered Multifunctional Sensing”, Nano Energy, Elsevier, Netherlands, 56, 241-251 (2019).
	[16]	J[16] X. Li, G. Xu, X. Xia, J. Fu, L. Huang, Y. Zi, “Standardization of Triboelectric Nanogenerators: Progress and Perspectives”, Nano Energy, Elsevier, Netherlands, 56, 40-55 (2019).
	[17]	J[17] Z. Wen, J. Fu, L. Han, Y. Liu, M. Peng, L. Zheng, Y. Zhu, X. Sun, Y. Zi, “Toward Self-powered Photodetection Enabled by Triboelectric Nanogenerators”, Journal of Materials Chemistry C, The Royal Society of Chemistry, United Kingdoms, 6, 11893-11902 (2018).
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