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Lin Qiu Professor; Doctoral supervisor; Beijing Nova program

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EDUCATION

BEng in Thermal Energy & Dynamic Engineering 2003.09-2007.07
School of Mechanical Engineering, University of Science and Technology Beijing (USTB), China.

MSc and PhD 2007.09-2012.07
Institute of Engineering Thermophysics, Chinese Academy of Sciences (CAS), China.

WORK EXPERIENCE

Assistant Professor 2012.07-2016.05
Institute of Engineering Thermophysics, CAS, China

Postdoc 2015.03-2016.03
Department of Mechanical and Aerospace Engineering, University of Virginia, USA
Supervised by Prof. Pamela M. Norris

Associate Professor 2016.06-2021.06
School of Energy and Environmental Engineering, USTB, China

Visiting Scholar 2016.08-2016.09
CNRS International NTU THALES Research Alliance, Nanyang Technological University, Singapore
Supervised by Prof. Bengkang Tay

Visiting Scholar 2017.07-2017.08
School of Chemistry and Process Engineering, University of Leeds, UK
Supervised by Prof. Dongsheng Wen

Professor 2021.07-Present
School of Energy and Environmental Engineering, USTB, China

SELECTED PROFESSIONAL SERVICE

Associate Editor 2022.03-Present
[Review of Scientific Instruments](#) (SCI)

Editorial Board Member 2015.01-Present
[Carbon](#) (SCI), [Scientific Reports](#) (SCI), [Applied Thermal Engineering](#) (SCI)

Youth Guest Editor 2019.05-Present
[Energy](#) (SCI), [Journal of Thermal Science](#) (SCI), [Materials](#) (SCI), Applied Sciences (SCI)

Academic Committee Member 2019.04
The 7th International Micro-Nano Technology Conference (ISMNT-7)

Director 2017.05-Present
Professional Committee of Engineering Thermophysics, China Association of Higher Education

Reviewer 2012.07-Present
60+ SCI journals

RESEARCH INTERESTS

Micro/Nanoscale Thermal Properties Measurement and Heat Transport Mechanism

- 3ω technology, Raman technology, SThM technology
- Thermal management technology based on carbon nanotubes
- Energy storage technology using phase change microcapsules

Recovery and Utilization of Waste Heat in Steel industry

- Numerical simulation of flow and heat transfer coupling of particles

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HONORS

Beijing Nova program - Beijing Science and Technology Commission	2021
Excellent Supervisor of Master's Thesis - University of Science and Technology Beijing	2021
Excellent Supervisor of Master's Thesis - University of Science and Technology Beijing	2020
Third Prize of Metallurgical Outstanding Youth Support Program - Nonferrous Metals Society of China	2021
Best Paper Award - Engineered Science Publisher	2021
Youth Excellent Paper Grant - Institute of Engineering Thermophysics, CAS	2014
Excellent Youth Award - Institute of Engineering Thermophysics, CAS	2014
Wu Zhonghua Award Fund - National Engineering Thermophysics Society	2012

ACADEMIC PRESENTATIONS

- [1] "Nanoscale manipulation to enhance thermal transport in CNT fibers", 2022 European Advanced Materials Congress, Virtual, 2022.6.25-7.2. (**Invited talk**)
- [2] "Electro curing of oriented bismaleimide between aligned carbon nanotubes for high mechanical and thermal performances", 2021 MRS Fall Meeting & Exhibit, Virtual, 2021.12.6-8. (**Invited talk**)
- [3] "Harmonic wave-based thermophysical property measurement technology for advanced materials", The 5th International Conference on Frontier Technology Innovation & The 3rd International Advance Energy Materials and Devices Symposium (ICFTI-2021), Chongqing, China, 2021.12.3-5. (**Invited talk**)
- [4] "Thermal transport enhancement by nanoscale manipulation in CNT assemblies: Experiments and MD simulation", The 8th Asian Symposium on Computational Heat Transfer and Fluid Flow (ASCHT-2021), Qingdao, China, 2021.9.23-26. (**Invited talk**)
- [5] "Heat transport in carbon nanomaterials", International Workshop on Heat Transfer for Green Energy Utilization (HTGE-2017), Beijing, China, 2017.9.18. (**Invited talk**)
- [6] "Heat transport in carbon nanomaterials", International Symposium on Measurement Technology in Thermal Science and Engineering (MTTSE-2017), Dalian, China, 2017.10.10-13. (**Invited talk**)

RESEARCH PROJECTS

- [1] National Foreign Expert Project, "Thermal measurement and thermal transport mechanism of ceramic skeleton composite phase change materials for medium and low temperatures", **PI**, ¥ 300,000, 2021/1/1-2022/12/31.
- [2] Beijing Nova Program, "Thermal physical properties monitoring and health diagnosis for skin signs based on flexible sensor", **PI**, ¥ 400,000, 2020/9/1-2023/8/31.
- [3] International Exchange Growth Plan Project for Young Teachers of USTB, "Thermal measurement and thermal transport mechanism of ceramic matrix composite phase change materials for medium and high temperature", **PI**, ¥ 80,000, 2020/5/14-2021/12/31.
- [4] Beijing Natural Science Foundation, "Study on ultra-high thermal conductivity carbon nanotube/graphene assembly film materials", **PI**, ¥ 200,000, 2020/1/1-2022/12/31.
- [5] Interdisciplinary Research and Cultivation Project for Young Teachers of USTB, "Study on thermal transport properties of ultra-high thermal conductivity diamond/graphene composite interface", **PI**, ¥ 100,000, 2020/1/1-2021/12/31.

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- [6] Ministry of Science and Technology of the People's Republic of China (MSTC), "Phononic wave transmission mechanism of graded holes and composite structures", Co-APPL, ¥ 2,570,000, 2019/9/1-2024/8/31.
- [7] National Natural Science Foundation of China (NSFC), "Thermal enhancement for fiber reinforced shape memory composites via interface control", **PI**, ¥ 698,000, 2019/1/1-2022/12/31.
- [8] MSTC, "Study on heat transfer mechanism of moving bed gas-solid two-phase flow based on CFD-DEM", **PI**, ¥ 900,000, 2017/7/1-2020/6/30.
- [9] Introduction of Talents Scheme of USTB, "Performance optimization of CNT-based micro-/nano-scale thermal management device via tuning thermal transport", **PI**, ¥ 300,000, 2016/7/1-2019/6/30.
- [10] Royal Society International Exchange Project, "Engineered nanoparticle-carbon nanotube fibres with programmable properties", Overseas Co-APPL, £ 12,000, 2016/3/1-2018/2/28.
- [11] NSFC, "Performance optimization research on thermal conductivity enhancement of phase transition temperature control system", Co-APPL, ¥ 768,000, 2016/1/1-2019/12/31.
- [12] NSFC, "Heat transport study at femtosecond and nanometer scale", Co-APPL, ¥ 3,000,000, 2014/1/1-2018/12/31.
- [13] Aviation Industry Corp. China, "Study on enhanced thermal dissipation technologies of high power chip", Co-APPL, ¥ 1,000,000, 2014/1/1-2016/12/31.
- [14] NSFC, "Study on thermal transport mechanism of nanoparticle-carbon nanotube composite fiber", **PI**, ¥ 250,000, 2014/1/1-2016/12/31.
- [15] Zhongguancun High-Tech Park Administrative Board, "Fund for development of national innovation model of Zhongguancun area", **PI**, ¥ 500,000, 2014/1/1-2015/6/30.
- [16] "Thermal Property Testing Service and Instrument Development Project", **PI**, ¥ 851,000, 2012/9/1-2022/6/7.
- [17] Chinese Academy of Sciences, "Study on the freestanding sensor-based 3ω technique", Co-APPL, ¥ 300,000, 2012/9/1-2014/8/31.
- [18] MSTC, "××Heat Conduction Techniques", Co-APPL, ¥ 650,000, 2012/7/1-2013/12/31.
- [19] China Aerospace Sci. Tech. Corp., "Performance optimization study of phase change composite materials" Co-APPL, ¥ 1,600,000, 2012/1/1-2014/12/31.
- [20] MSTC, "Study on heat transfer and storage of phase change micro-capsules", Co-APPL, ¥ 560,000, 2012/1/1-2013/12/31.
- [21] MSTC, "New method and thermal transport law for heat transfer characterization of nanoscale materials", Co-APPL, ¥ 5,790,000, 2011/9/1-2015/8/31.

GRANTED PATENTS

- [1] **Lin Qiu**, Kening Yan, Yanhui Feng, Xinxin Zhang. "A device and method for measuring the thermal conductivity of materials in a wide temperature range" - C.N. Patent 202110134103.7, Awarded 2021/10/22. (**Invention**)
- [2] **Lin Qiu**, Yuxin Ouyang, Yanhui Feng Xinxin Zhang. "Non-destructive Measuring Device for Three-Dimensional Anisotropic Thermal Conductivity of Materials" - C.N. Patent 20181692160.7, Awarded 2019/5/31.
- [3] **Lin Qiu**, Dawei Tang, Yanhui Feng, Xinxin Zhang, "Device and Method for On-site Accurate Testing of Heat Conductivity of Energy-saving Thermal Insulation Materials" - C.N. Patent 201610580315.7, Awarded 2018/9/14. (**Invention**)

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- [4] **Lin Qiu**, Yanhui Feng, Xinxin Zhang, Zhen Zhang, Hanying Zou. “Method and Device for Preparing Carbon Nanotube Array Thermal Interface Material with High Purity and High Heat Conductivity” - C.N. Patent 201611126343.8, Awarded 2018/7/27. **(Invention)**
- [5] Xinghua Zheng, Peng Yue, Yuhua Li, **Lin Qiu**, Dawei Tang, “Spiral Pipe-type Non-phase-change Heating Device” - C.N. Patent 201410194345.5, Awarded 2017/8/25. **(Invention)**
- [6] **Lin Qiu**, Yanhui Feng, Xinxin Zhang, Zhen Zhang, Hanying Zou. “High Heat Conduction Carbon Nanotube Array Thermal Interface Material Preparation Facilities of High-purity” - C.N. Patent 201621345714.7, Awarded 2017/6/27.
- [7] **Lin Qiu**, Xinghua Zheng, Daqing Li, Dawei Tang, “Device for Testing Thermophysical Parameters of Material by Double-helix Plane Structure Harmonic Wave Method” - C.N. Patent 201410078886.1, Awarded 2016/6/1. **(Invention)**
- [8] **Lin Qiu**, Xinghua Zheng, Xianfeng Xu, Lanlan Li, Dawei Tang, “Device and Method of Testing Material Thermophysical Property Parameter” - C.N. Patent 201310032893.3, Awarded 2016/2/24. **(Invention)**
- [9] Xinghua Zheng, Peng Yue, Yuhua Li, **Lin Qiu**, Dawei Tang, “Antigravity Spiral Coiled Pipe Type Non-phase-change Heat Removal Device” - C.N. Patent 201420237565.7, Awarded 2014/9/24.
- [10] **Lin Qiu**, Xianfeng Xu, Dawei Tang, Jie Zhu, Wenfeng Bu, “Optical System and Method for Measuring Thermal Physical Property Parameters of Solid” - C.N. Patent 201210476747.5, Awarded 2014/8/20. **(Invention)**
- [11] **Lin Qiu**, Xinghua Zheng, Dawei Tang, “Measurement Device and Measurement Method of Veneer-type Sensor for Measuring Heat Absorption Coefficient” - C.N. Patent 201210258346.2, Awarded 2014/4/9. **(Invention)**
- [12] Xinghua Zheng, Guoping Su, Dawei Tang, **Lin Qiu**, “Detection Method for Thermal Conductivity and Thermal Diffusivity of Anisotropic Material” - C.N. Patent 201010201486.7, Awarded 2013/5/8. **(Invention)**
- [13] Xinghua Zheng, **Lin Qiu**, Dawei Tang, “Device and Method for Measuring Heat Storage Coefficient of Material by Harmonic Method Based on Independent Sensor” - C.N. Patent 201110138899.X, Awarded 2013/2/13. **(Invention)**
- [14] **Lin Qiu**, Xinghua Zheng, Dawei Tang, “Surface-mounted Sensor and Heat Absorption Coefficient Measuring Device” - C.N. Patent 201220360421.1, Awarded 2013/2/13.
- [15] Xinghua Zheng, **Lin Qiu**, Guoping Su, Dawei Tang, “Method and Device for Testing Thermal Physical Property of Single Conductive Filamentary Material by Using Harmonic Method” - C.N. Patent 201010141035.9, Awarded 2012/10/31. **(Invention)**
- [16] Xinghua Zheng, **Lin Qiu**, Guoping Su, Dawei Tang, “Harmonic Micrometer/Nanometre Film Thermal Property Test Method” - C.N. Patent 201010218390.1, Awarded 2012/6/27. **(Invention)**
- [17] Xinghua Zheng, **Lin Qiu**, Dawei Tang, “Method and Device for Testing Thermal Physical Property of Solid Material with Independent Probe by Using Harmonic Method” - C.N. Patent 200910242362.0, Awarded 2011/10/5. **(Invention)**
- [18] Xinghua Zheng, **Lin Qiu**, Dawei Tang, “Harmonic Method Solid Material Thermal Physical Property Test Device with Independent Probe” - C.N. Patent 200920277780.9, Awarded 2010/7/28.

COMPUTER SOFTWARE COPYRIGHT

- [1] **Lin Qiu**, Gang Wang, Xinghua Zheng, Dawei Tang, “Software for the measurement of thermophysical properties parameters for liquids and powders (Version No. 1.0.0)” - C.N. Computer Software Copyright 2014R11S010727, Awarded 2014/3/1.

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RESEARCH BOOKS/CHAPTERS

- [1] **Lin Qiu**, Yanhui Feng, Micro and Nano Thermal Transport: Characterization, Measurement, and Mechanism, Academic Press, London, 2022, ISBN: 9780128235393.
- [2] **Lin Qiu**, Xinghua Zheng, Meng Liu, Peng Yue, Dawei Tang, "Chapter IV. Heat Conduction and Heat Storage Characterizations of Phase-Change Microcapsules," In *Green Building and Phase Change Materials: Characteristics, Energy Implications and Environmental Impacts*, Nova Science Publisher, New York, pp. 103-120, 2015, ISBN: 978-1-63482-702-7.
- [3] Xinghua Zheng, Jie Zhu, **Lin Qiu**, Dawei Tang. "Chapter 2: Characterization of Thermophysical Properties of Micro/Nano Structure Materials." *Thermal Energy Control Micro/Nano Structure Materials*, Science Publisher, Beijing, pp. 24-87, 2014, ISBN: 978-7-03-041001-6.

PUBLICATIONS IN PEER-REVIEWED JOURNALS (Citation: 1627, H-index: 23)

- [1] **Lin Qiu**, Ning Zhu, Yanhui Feng*, Efsthathios E. Michaelides, Gawł Żyła, Dengwei Jing, Xinxin Zhang, Pamela M. Norris, Christos N. Markides, Omid Mahian*. A review of recent advances in thermophysical properties at the nanoscale: From solid state to colloids. *Physics Reports*, 2020, 843, 1-81. [[Full Text Link](#)] (SCI, **ESI hot & highly cited paper**, IF=25.809)
- [2] **Lin Qiu**, Xiaohua Zhang*, Zhixin Guo, Qingwen Li. Interfacial heat transport in nano-carbon assemblies. *Carbon*, 2021, 178, 391-412. [[Full Text Link](#)] (SCI, IF=8.821)
- [3] **Lin Qiu**, Pu Guo, Qinyu Kong, Chong Wei Tan, Kun Liang, Jun Wei, Ju Nie Tey, Yanhui Feng*, Xinxin Zhang, Beng Kang Tay*. Coating-boosted interfacial thermal transport for carbon nanotube array nano-thermal interface materials. *Carbon*, 2019, 145, 725-733. [[Full Text Link](#)] (SCI, IF=8.821)
- [4] **Lin Qiu**, Pu Guo, Xueqin Yang, Yuxin Ouyang, Yanhui Feng*, Xinxin Zhang, Jingna Zhao, Xiaohua Zhang*, Qingwen Li. Electro curing of oriented bismaleimide between aligned carbon nanotubes for high mechanical and thermal performances. *Carbon*, 2019, 145, 650-657. [[Full Text Link](#)] (SCI, IF=8.821)
- [5] **Lin Qiu**, Hanying Zou, Xiaotian Wang, Yanhui Feng*, Xinxin Zhang, Jingna Zhao, Xiaohua Zhang*, Qingwen Li. Enhancing the interfacial interaction of carbon nanotubes fibers by Au nanoparticles with improved performance of the electrical and thermal conductivity. *Carbon*, 2019, 141, 497-505. [[Full Text Link](#)] (SCI, **highly cited paper**, IF=8.821)
- [6] **Lin Qiu**, Kimberly Scheider, Suhaib Abu Radwan, LeighAnn Sarah Larkin, Christopher Blair Saltonstall, Yanhui Feng*, Xinxin Zhang, Pamela M. Norris*. Thermal transport barrier in carbon nanotube array nano-thermal interface materials. *Carbon*, 2017, 120, 128-136. [[Full Text Link](#)] (SCI, IF=8.821)
- [7] **Lin Qiu**, Xiaotian Wang, Dawei Tang*, Xinghua Zheng*, Pamela M. Norris, Dongsheng Wen, Jingna Zhao, Xiaohua Zhang, Qingwen Li. Functionalization and densification of inter-bundle interfaces for improvement in electrical and thermal transport of carbon nanotube fibers. *Carbon*, 2016, 105, 248-259. [[Full Text Link](#)] (SCI, IF=8.821)
- [8] **Lin Qiu**, Xinghua Zheng*, Jie Zhu, Guoping Su, Dawei Tang. The effect of grain size on the lattice thermal conductivity of an individual polyacrylonitrile-based carbon fiber. *Carbon*, 2013,

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- 51, 265-273. [[Full Text Link](#)] (SCI, IF=8.821)
- [9] **Lin Qiu***, Kening Yan, Yanhui Feng*, Xianglei Liu, Xinxin Zhang. Bionic hierarchical porous aluminum nitride ceramic composite phase change material with excellent heat transfer and storage performance. *Composites Communications*, 2021, 27, 100892. [[Full Text Link](#)] (SCI, IF=6.617)
- [10] **Lin Qiu**, Yuxin Ouyang, Yanhui Feng*, Xinxin Zhang. Review on micro/nano phase change materials for solar thermal applications. *Renewable Energy*, 2019, 140, 513-538. [[Full Text Link](#)] (SCI, **hot & highly cited paper**, IF=6.274)
- [11] **Lin Qiu**, Yanli Li, Yanhui Feng*, Zegui Chen, Xinxin Zhang. Three-dimensional fluid-solid coupling heat transfer simulation based on multireference frame for side-blown aluminum annealing furnace. *Engineering Applications of Computational Fluid Mechanics*, 2019, 13(1), 1036-1048. [[Full Text Link](#)] (SCI, IF=5.8)
- [12] **Lin Qiu***, Fengcheng Li*, Ning Zhu, Yanhui Feng*, Xinxin Zhang, Xiaohua Zhang*. Elaborate manipulation on CNT intertube heat transport by using a polymer knob. *International Journal of Heat and Mass Transfer*, 2022, 184, 122280. [[Full Text Link](#)] (SCI, IF=4.947)
- [13] **Lin Qiu***, Yuxin Ouyang, Yanhui Feng*, Xinxin Zhang, Xiaotian Wang*. In vivo skin thermophysical property testing technology using flexible thermosensor-based 3ω method. *International Journal of Heat and Mass Transfer*, 2020, 163, 120550. [[Full Text Link](#)] (SCI, IF=4.947)
- [14] **Lin Qiu***, Ning Zhu, Yanhui Feng*, Xinxin Zhang, Xiaotian Wang*. Interfacial thermal transport properties of polyurethane/carbon nanotube hybrid composites. *International Journal of Heat and Mass Transfer*, 2020, 152, 119565. [[Full Text Link](#)] (SCI, IF=4.947)
- [15] **Lin Qiu**, Ning Zhu, Hanying Zou, Yanhui Feng*, Xinxin Zhang, Dawei Tang*. Advances in thermal transport properties at nanoscale in China. *International Journal of Heat and Mass Transfer*, 2018, 125, 413-433. [[Full Text Link](#)] (SCI, IF=4.947)
- [16] **Lin Qiu***, Dawei Sang, Yanli Li, Yanhui Feng*, Xinxin Zhang. Numerical simulation of Pow heat transfer characteristics of porous structure composed of high-temperature particles in moving bed. *Applied Thermal Engineering*, 2020, 181, 115925. [[Full Text Link](#)] (SCI, IF=4.725)
- [17] **Lin Qiu**, Hanying Zou, Dawei Tang, Dongsheng Wen, Yanhui Feng*, Xinxin Zhang. Inhomogeneity in pore size appreciably lowering thermal conductivity for porous thermal insulators. *Applied Thermal Engineering*, 2018, 130, 1004-1011. [[Full Text Link](#)] (SCI, IF=4.725)
- [18] **Lin Qiu**, Hanying Zou, Ning Zhu, Yanhui Feng*, Xiaoliang Zhang, Xinxin Zhang. Iodine nanoparticle-enhancing electrical and thermal transport for carbon nanotube fibers. *Applied Thermal Engineering*, 2018, 141, 913-920. [[Full Text Link](#)] (SCI, IF=4.725)
- [19] **Lin Qiu**, Yanhui Feng*, Zegui Chen, Yanli Li, Xinxin Zhang. Numerical simulation and optimization of the melting process for the regenerative aluminum melting furnace. *Applied Thermal Engineering*, 2018, 145, 315-327. [[Full Text Link](#)] (SCI, IF=4.725)
- [20] **Lin Qiu***, Dawei Sang, Yanhui Feng*, Xinxin Zhang. Experimental study on particle flow characteristics of three-dimensional moving bed. *Powder Technology*, 2020, 374, 399-408. [[Full Text Link](#)] (SCI, IF=4.142)
- [21] **Lin Qiu**, Fengcheng Li, Ning Zhu, Yanhui Feng*, Xiaoliang Zhang*, Xiaohua Zhang*. Broad

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- low-frequency phonon resonance for increased across-tube heat transport. *Physical Review B*, 2022, 105(16), 165406. [[Full Text Link](#)] (SCI, IF=4.036)
- [22] **Lin Qiu[#]**, Xiaotian Wang[#], Guoping Su, Dawei Tang*, Xinghua Zheng*, Jie Zhu, Zhiguo Wang, Pamela M. Norris, Philip D. Bradford, Yuntian Zhu. Remarkably enhanced thermal transport based on a flexible horizontally-aligned carbon nanotube array film. *Scientific Reports*, 2016, 6, 21014. [[Full Text Link](#)] (SCI, IF=3.998)
- [23] **Lin Qiu**, Dawei Sang, Yanhui Feng*, Haoyan Huang, Xinxin Zhang. Study on heat transfer of process intensification in moving bed reactor based on the discrete element method. *Chemical Engineering and Processing - Process Intensification*, 2020, 151, 107915. [[Full Text Link](#)] (SCI, IF=3.731)
- [24] **Lin Qiu**, Yuxin Ouyang, Yanhui Feng*, Xinxin Zhang, Xiaotian Wang*, Jin Wu*. Thermal barrier effect from internal pore channels on thickened aluminum nanofilm. *International Journal of Thermal Sciences*, 2021, 162, 106781. [[Full Text Link](#)] (SCI, IF=3.476)
- [25] **Lin Qiu**, Xinghua Zheng*, Peng Yue, Jie Zhu, Dawei Tang*, Yajun Dong, Yuelian Peng. Adaptable thermal conductivity characterization of microporous membranes based on freestanding sensor-based 3ω technique. *International Journal of Thermal Sciences*, 2015, 89(3), 185-192. [[Full Text Link](#)] (SCI, IF=3.476)
- [26] **Lin Qiu**, Yanbo Du, Yangyang Bai, Yanhui Feng*, Xinxin Zhang, Jin Wu*, Xiaotian Wang, Caihong Xu. Experimental characterization and model verification of thermal conductivity from mesoporous to macroporous SiOC ceramics. *Journal of Thermal Science*, 2021, 30(2), 465-476. [[Full Text Link](#)] (SCI, IF=1.972)
- [27] **Lin Qiu**, Yuxin Ouyang, Yanhui Feng*, Xinxin Zhang. Note: Thermal conductivity measurement of individual porous polyimide fibers using a modified wire-shape 3ω method. *Review of Scientific Instruments*, 2018, 89(9), 096112. [[Full Text Link](#)] (SCI, IF=1.48)
- [28] **Lin Qiu**, Dawei Tang*, Xinghua Zheng, Guoping Su. The freestanding sensor-based 3ω technique for measuring thermal conductivity of solids: principle and examination. *Review of Scientific Instruments*, 2011, 82(4), 045106. [[Full Text Link](#)] (SCI, IF=1.48)
- [29] **Lin Qiu**, Xinghua Zheng, Jie Zhu, Dawei Tang*. Note: Non-destructive measurement of thermal effusivity of a solid and liquid using a freestanding serpentine sensor-based 3ω technique. *Review of Scientific Instruments*, 2011, 82(8), 086110. [[Full Text Link](#)] (SCI, IF=1.48)
- [30] **Lin Qiu***, Yuhao Ma, Yuxin Ouyang, Yanhui Feng, Xinxin Zhang. Freestanding flexible sensor based on 3ω technique for anisotropic thermal conductivity measurement of potassium dihydrogen phosphate crystal. *Sensors*, 2021, 21(23), 7968. [[Full Text Link](#)] (SCI, IF=3.576)
- [31] **Lin Qiu**, Xinghua Zheng*, Jie Zhu, Dawei Tang, Shiyong Yang, Aijun Hu, Leilei Wang, Shishi Li. Thermal transport in high-strength polymethacrylimide (PMI) foam insulations. *International Journal of Thermophysics*, 2015, 36(10), 2523-2534. [[Full Text Link](#)] (SCI, IF=0.794)
- [32] **Lin Qiu**, Yongming Li, Xinghua Zheng*, Jie Zhu, Dawei Tang, Jiquan Wu, Caihong Xu. Thermal-conductivity studies of macro-porous polymer-derived SiOC ceramics. *International Journal of Thermophysics*, 2014, 35(1), 76-89. [[Full Text Link](#)] (SCI, IF=0.794)
- [33] **Lin Qiu**, Xinghua Zheng, Guoping Su, Dawei Tang*. Design and application of a freestanding sensor based on 3ω technique for thermal conductivity measurement of solids, liquids and

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- nanopowders. International Journal of Thermophysics, 2013, 34(12), 2261-2275. [[Full Text Link](#)] (SCI, IF=0.794)
- [34] Yuxin Ouyang[#], **Lin Qiu^{#*}**, Yangyang Bai, Wei Yu, Yanhui Feng*. Synergistical thermal modulation function of 2D Ti₃C₂ MXene composite nanosheets via interfacial structure modification. iScience, Accepted. (SCI, IF=6.107)
- [35] Qinyu Kong, **Lin Qiu***, Yu Dian Lim, Chong Wei Tan, Kun Liang, Congxiang Lu, Beng Kang Tay*. Thermal conductivity characterization of three dimensional carbon nanotube network using freestanding sensor-based 3 ω technique. Surface & Coatings Technology, 2018, 345, 105-112. [[Full Text Link](#)] (SCI, IF=3.784)
- [36] Meng Liu, **Lin Qiu***, Xinghua Zheng*, Jie Zhu, Dawei Tang. Study on the thermal resistance in secondary particles chain of silica aerogel by molecular dynamics simulation. Journal of Applied Physics, 2014, 116(9), 093503. [[Full Text Link](#)] (SCI, IF=2.286)
- [37] Guoping Su, **Lin Qiu***, Xinghua Zheng*, Zhuohao Xiao, Dawei Tang. Effective thermal conductivity measurement on germanate glass-ceramics employing the 3 ω method in high temperature. International Journal of Thermophysics, 2014, 35(2), 336-345. [[Full Text Link](#)] (SCI, IF=0.794)
- [38] Wei Chen, **Lin Qiu***, Shiqiang Liang*, Xinghua Zheng, Dawei Tang. Measurement of thermal conductivities of DMP/CH₃OH and DMP/H₂O by freestanding sensor-based 3 ω technique. Thermochimica Acta, 2013, 560, 1-6. [[Full Text Link](#)] (SCI, IF=2.762)
- [39] Xinghua Zheng, **Lin Qiu***, Peng Yue, Gang Wang, Dawei Tang. 3 ω slope comparative method for fluid and powder thermal conductivity measurements. Modern Physics Letters B, 2016, 30(25), 1650322. [[Full Text Link](#)] (SCI, IF=1.224)
- [40] Xiaoxin Yan, Haibo Zhao, Yanhui Feng*, **Lin Qiu***, Lin Lin, Xinxin Zhang, Taku Ohara. Excellent heat transfer and phase transformation performance of erythritol/graphene composite phase change materials. Composite Part B: Engineering, 2022, 228, 109435. [[Full Text Link](#)] (SCI, IF=9.078)
- [41] Xiaoxin Yan, Yanhui Feng*, **Lin Qiu***, Xinxin Zhang. Thermal conductivity and phase change characteristics of hierarchical porous diamond/erythritol composite phase change materials. Energy, 2021, 233, 121158. [[Full Text Link](#)] (SCI, IF=6.082)
- [42] Yanhui Feng*, Zhen Zhang, **Lin Qiu***, Xinxin Zhang. Heat recovery process modelling of semi-molten blast furnace slag in a moving bed using XDEM. Energy, 2019, 186, 115876. [[Full Text Link](#)] (SCI, IF=6.082)
- [43] Hanying Zou, Yanhui Feng*, **Lin Qiu***. Excellent heat transfer enhancement of CNT-metal interface by loading carbyne and metal nanowire into CNT. International Journal of Heat and Mass Transfer, 2022, 186, 122533. [[Full Text Link](#)] (SCI, IF=4.947)
- [44] Hanying Zou, Yanhui Feng*, **Lin Qiu***, Xinxin Zhang. Thermal conductance control of non-bonded interaction between loaded halogen molecules and carbon nanotubes: A molecular dynamics study. International Journal of Heat and Mass Transfer, 2022, 183, 122216. [[Full Text Link](#)] (SCI, IF=4.947)
- [45] Wencan Chen, Yanhui Feng*, **Lin Qiu***, Xinxin Zhang. Scanning thermal microscopy method for thermal conductivity. International Journal of Heat and Mass Transfer, 2020, 154, 119750. [[Full](#)

**Homepage:**

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[Text Link](#)] (SCI, IF=4.947)

- [46] Zihan Liu, Yanhui Feng*, **Lin Qiu***. Near-field radiation analysis and thermal contact radius determination in the thermal conductivity measurement based on SThM open-loop system. Applied Physics Letters, 2022, 120(12), 113506. [[Full Text Link](#)] (SCI, IF=3.791)
- [47] Guangpeng Feng, Yanhui Feng*, Lin Qiu*, Xinxin Zhang. Pore scale simulation for melting of composite phase change materials considering interfacial thermal resistance. Applied Thermal Engineering, 2022, 212, 118624. [[Full Text Link](#)] (SCI, IF=4.725)
- [48] Guangpeng Feng, Yanhui Feng*, Lin Qiu*, Xinxin Zhang. Evaluation of thermal performance for bionic porous ceramic phase change material using micro-computed tomography and lattice Boltzmann method. International Journal of Thermal Sciences, 2022, 179, 107621. [[Full Text Link](#)] (SCI, IF=3.744)
- [49] Hanying Zou, Yanhui Feng*, **Lin Qiu***, Xinxin Zhang. Effect of the loading amount and arrangement of iodine chains on the interfacial thermal transport of carbon nanotubes: a molecular dynamics study. RSC Advances, 2020, 10(72), 44196-44204. [[Full Text Link](#)] (SCI, IF=3.119)
- [50] Yanhui Feng*, Hanying Zou, **Lin Qiu***, Xinxin Zhang. Size effect on the thermal conductivity of octadecanoic acid: A molecular dynamics study. Computational Materials Science, 2019, 158, 14-19. [[Full Text Link](#)] (SCI, IF=2.863)
- [51] Peng Han, Xinghua Zheng*, Wenshuo Hou, **Lin Qiu***, Dawei Tang. Study on heat storage and release characteristics of multi-cavity structured phase change microcapsules. Phase Transitions, 2015, 88(7), 704-715. [[Full Text Link](#)] (SCI, IF=1.004)
- [52] Quang N. Pham, LeighAnn S. Larkin, Carina C. Lisboa, Christopher B. Saltonstall, **Lin Qiu***, Jennifer D. Schuler, Timothy J. Rupert, Pamela M. Norris. Effect of growth temperature on the synthesis of carbon nanotube arrays and amorphous carbon for thermal applications. Physica Status Solidi A-Applications and Materials Science, 2017, 214(7), 1600852. [[Full Text Link](#)] (SCI, IF=1.759)
- [53] Jian Yu[#], Chao Chen[#], Jie Lin*, Xiangyu Meng, **Lin Qiu***, Xiaotian Wang*. Amorphous Co(OH)₂ nanocages achieving efficient photo-induced charge transfer for significant SERS activity, Journal of Materials Chemistry C, 2022, 10, 1632. [[Full Text Link](#)] (SCI, IF= 7.393)
- [54] Jian Yu, Jie Lin*, Mo Chen, Xiangyu Meng, **Lin Qiu***, Jin Wu*, Guangcheng Xi, Xiaotian Wang*. Amorphous Ni(OH)₂ nanocages as efficient SERS substrates for selective recognition in mixtures, Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 631, 127652. [[Full Text Link](#)] (SCI, IF=4.539)
- [55] Yanhui Feng*, Zhen Zhang, Jie Gao, Guangpeng Feng, **Lin Qiu***, Daili Feng, Xinxin Zhang, Xun Zhu. Research status of centrifugal granulation, physical heat recovery and resource utilization of blast furnace slags. Journal of Analytical and Applied Pyrolysis, 2021, 157, 105220. [[Full Text Link](#)] (SCI, IF=3.905)
- [56] Hanying Zou, Cheng Chen, Muxi Zha, Kangneng Zhou, Ruoxiu Xiao, Yanhui Feng*, **Lin Qiu***, Zhiliang Wang. A neural regression model for predicting thermal conductivity of CNT nanofluids with multiple base fluids. Journal of Thermal Science, 2021, 30, 1908-1916. [[Full Text Link](#)] (SCI, IF=1.972)
- [57] Jin Wu*, Zixuan Wu, Haojun Ding, Yaoming Wei, Wenxi Huang, Xing Yang, Zhenyi Li, **Lin Qiu***,

**Homepage:**

<http://seee.ustb.edu.cn/shiziduiwu/quantijiaoshi/2021-04-13/146.html>

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- Xiaotian Wang*. Three-dimensional graphene hydrogel decorated with SnO₂ for high-performance NO₂ sensing with enhanced immunity to humidity. *ACS Applied Materials & Interfaces*, 2020, 12(2), 2634-2643. [\[Full Text Link\]](#) (SCI, IF=8.758)
- [58] Jin Wu*, Zixuan Wu, Haojun Ding, Yaoming Wei, Xing Yang, Zhenyi Li, Boru Yang, Chuan Liu, **Lin Qiu***, Xiaotian Wang*. Multifunctional and high-sensitive sensor capable of detecting humidity, temperature, and flow stimuli using an integrated microheater. *ACS Applied Materials & Interfaces*, 2019, 11(46), 43383-43392. [\[Full Text Link\]](#) (SCI, IF=8.758)
- [59] Jin Wu*, Zixuan Wu, Haojun Ding, Yaoming Wei, Wenxi Huang, Xing Yang, Zhenyi Li, **Lin Qiu***, Xiaotian Wang*. Flexible, 3D SnS₂/reduced graphene oxide heterostructured NO₂ sensor. *Sensors and Actuators B: Chemical*, 2020, 305, 127445. [\[Full Text Link\]](#) (SCI, **ESI highly cited paper**, IF=7.1)
- [60] Jin Wu*, Zixuan Wu, Haojun Ding, Xing Yang, Yaoming Wei, Mingquan Xiao, Ziqi Yang, Bo-Ru Yang, Chuan Liu, Xing Lu, **Lin Qiu***, Xiaotian Wang*. Three-dimensional-structured Boron- and Nitrogen-doped graphene hydrogel enabling high-sensitivity NO₂ detection at room temperature. *ACS Sensors*, 2019, 4(7), 1889-1898. [\[Full Text Link\]](#) (SCI, IF=7.333)
- [61] Yuanhui Sun, **Lin Qiu**, Liangpo Tang, Hua Geng, Hanfu Wang, Fengjiao Zhang, Dazhen Huang, Wei Xu*, Peng Yue, Ying-shi Guan, Fei Jiao, Yimeng Sun, Dawei Tang, Chong-an Di, Yuanping Yi*, Daoben Zhu*. Flexible n-type high-performance thermoelectric thin films of poly(nickle-ethylenetetraethiolate) prepared by an electrochemical method. *Advanced Materials*, 2016, 28(17), 3351-3358. [\[Full Text Link\]](#) (SCI, IF=27.398)
- [62] Jiaojiao Wang, Jingna Zhao, **Lin Qiu**, Fengcheng Li, Changle Xu, Kunjie Wu, Pengfei Wang, Xiaohua Zhang*, Qingwen Li*. Shampoo assisted aligning of carbon nanotubes toward strong, stiff and conductive fibers. *RSC Advances*, 2020, 10, 18715. [\[Full Text Link\]](#) (SCI, IF=3.119)
- [63] Daili Feng, Yanhui Feng*, **Lin Qiu**, Pei Li, Yuyang Zang, Hanying Zou, Zepei Yu, Xinxin Zhang. Review on nanoporous composite phase change materials: Fabrication, characterization, enhancement and molecular simulation. *Renewable and Sustainable Energy Reviews*, 2019, 109, 578-605. [\[Full Text Link\]](#) (SCI, IF=12.11)
- [64] Xinghua Zheng*, **Lin Qiu**, Guoping Su, Dawei Tang, Yuchao Liao, Yunfa Chen. Thermal conductivity and thermal diffusivity of SiO₂ nanopowder. *Journal of Nanoparticle Research*, 2011, 13(12), 6887-6893. [\[Full Text Link\]](#) (SCI, IF=2.132)
- [65] Cheng Chen, Mangan Yu, **Lin Qiu**, Hongyu Chen, Zhenlong Zhao, Jie Wu, Lili Peng, Zhiliang Wang, Ruoxiu Xiao*, Theoretical evaluation of microwave ablation applied on muscle, fat and bone: A numerical study. *Applied Sciences*, 2021, 11(17), 8271. [\[Full Text Link\]](#) (SCI, IF=2.679)
- [66] Guoping Su, Xinghua Zheng*, **Lin Qiu**, Dawei Tang*, Jie Zhu. Measurement of thermal conductivity of anisotropic SiC crystal. *International Journal of Thermophysics*, 2013, 34(12), 2334-2342. [\[Full Text Link\]](#) (SCI, IF=0.794)
- [67] Gangtao Zhao*, Xiaohui Xu, **Lin Qiu**, Xinghua Zheng, Dawei Tang. Study on the heat conduction of phase-change material microcapsules. *Journal of Thermal Science*, 2013, 22(3), 257-260. [\[Full Text Link\]](#) (SCI, IF=1.972)
- [68] Jiajia Zhang, Guangjie Song, **Lin Qiu**, Yanhui Feng, Jie Chen, Jie Yan, Liyao Liu, Xing Huang, Yutao Cui, Yimeng Sun, Wei Xu*, Daoben Zhu*. Highly conducting polythiophene thin films with

**Homepage:**

[http://seee.ustb.edu.cn/shiziduiwu/q
uantijiaoshi/2021-04-13/146.html](http://seee.ustb.edu.cn/shiziduiwu/q
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- less ordered microstructure displaying excellent thermoelectric performance. Macromolecular Rapid Communications, 2018, 39(13), 1800283. [[Full Text Link](#)] (SCI, IF=4.886)
- [69] Yanhui Feng*, Daili Feng, Fuqiang Chu, Lin Qiu, Fangyuan Sun, Lin Lin, Xinxin Zhang. Thermal design frontiers of nano-assembled phase change materials for heat storage. Acta Physica Sinica, 2022, 71(1), 016501. [[Full Text Link](#)] (SCI, IF=0.819)
- [70] Zhehao Li*, Yuelian Peng*, Yajun Dong, Hongwei Fan, Ping Chen, **Lin Qiu**, Qi Jiang. Effects of thermal efficiency in DCMD and the preparation of membranes with low thermal conductivity. Applied Surface Science, 2014, 317(30), 338-349. [[Full Text Link](#)] (SCI, IF=6.182)
- [71] Peng Yue, **Lin Qiu***, Xinghua Zheng, Dawei Tang. The effective thermal conductivity of porous polymethacrylimide foams. Key Engineering Materials, 2014, 609-610, 196-200. [[Full Text Link](#)] (EI)