**Thermal Management Materials (2022-2024)**

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1. **Mixed-Dimensional Assembly Strategy to Construct Reduced Graphene Oxide/Carbon Foams Heterostructures for Microwave Absorption, Anti-Corrosion and Thermal Insulation (Article)**

Beibei Zhan, Yunpeng Qu, Xiaosi Qi, Junfei Ding, Jiao-jing Shao, Xiu Gong, Jing-Liang Yang, Yanli Chen, Qiong Peng, Wei Zhong & Hualiang Lv

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1. **Multifunctional Integrated Organic–Inorganic-Metal Hybrid Aerogel for Excellent Thermal Insulation and Electromagnetic Shielding Performance (Article)**

Zhaoqi Niu, Fengjin Qu, Fang Chen, Xiaoyan Ma, Beixi Chen, Luyao Wang, Miao Xu, Shumeng Wang, Liang Jin, Chengshuang Zhang & Xiao Hou

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1. **Regulatable Orthotropic 3D Hybrid Continuous Carbon Networks for Efficient Bi-Directional Thermal Conduction (Article)**

Huitao Yu, Lianqiang Peng, Can Chen, Mengmeng Qin & Wei Feng

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1. **Personal Thermal Management by Radiative Cooling and Heating (Review)**

Shidong Xue, Guanghan Huang, Qing Chen, Xungai Wang, Jintu Fan & Dahua Shou

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1. **Highly Thermally Conductive and Structurally Ultra-Stable Graphitic Films with Seamless Heterointerfaces for Extreme Thermal Management (Article)**

Peijuan Zhang, Yuanyuan Hao, Hang Shi, Jiahao Lu, Yingjun Liu, Xin Ming, Ya Wang, Wenzhang Fang, Yuxing Xia, Yance Chen, Peng Li, Ziqiu Wang, Qingyun Su, Weidong Lv, Ji Zhou, Ying Zhang, Haiwen Lai, Weiwei Gao, Zhen Xu & Chao Gao

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1. **Metal–Organic Gel Leading to Customized Magnetic-Coupling Engineering in Carbon Aerogels for Excellent Radar Stealth and Thermal Insulation Performances (Article)**

Xin Li, Ruizhe Hu, Zhiqiang Xiong, Dan Wang, Zhixia Zhang, Chongbo Liu, Xiaojun Zeng, Dezhi Chen, Renchao Che & Xuliang Nie

Nano-Micro Lett. 16, 42 (2024). <https://doi.org/10.1007/s40820-023-01255-7>

1. **Flexible and Robust Functionalized Boron Nitride/Poly(p-Phenylene Benzobisoxazole) Nanocomposite Paper with High Thermal Conductivity and Outstanding Electrical Insulation (Article)**

Lin Tang, Kunpeng Ruan, Xi Liu, Yusheng Tang, Yali Zhang & Junwei Gu

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1. **Coaxial Wet Spinning of Boron Nitride Nanosheet-Based Composite Fibers with Enhanced Thermal Conductivity and Mechanical Strength (Article)**

Wenjiang Lu, Qixuan Deng, Minsu Liu, Baofu Ding, Zhiyuan Xiong & Ling Qiu

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1. **Highly Thermoconductive, Strong Graphene-Based Composite Films by Eliminating Nanosheets Wrinkles (Article)**

Guang Xiao, Hao Li, Zhizhou Yu, Haoting Niu & Yagang Yao

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1. **Temperature-Arousing Self-Powered Fire Warning E-Textile Based on p–n Segment Coaxial Aerogel Fibers for Active Fire Protection in Firefighting Clothing (Article)**

Hualing He, Yi Qin, Zhenyu Zhu, Qing Jiang, Shengnan Ouyang, Yuhang Wan, Xueru Qu, Jie Xu & Zhicai Yu

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1. **Cerium Methacrylate Assisted Preparation of Highly Thermally Conductive and Anticorrosive Multifunctional Coatings for Heat Conduction Metals Protection (Article)**

Fei Xu, Peng Ye, Jianwen Peng, Haolei Geng, Yexiang Cui, Di Bao, Renjie Lu, Hongyu Zhu, Yanji Zhu & Huaiyuan Wang

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1. **"Three-in-One" Multi-Scale Structural Design of Carbon Fiber-Based Composites for Personal Electromagnetic Protection and Thermal Management (Article)**

Ming Zhou, Shujuan Tan, Jingwen Wang, Yue Wu, Leilei Liang & Guangbin Ji

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1. **A Thermochromic, Viscoelastic Nacre-like Nanocomposite for the Smart Thermal Management of Planar Electronics (Article)**

Jiemin Wang, Tairan Yang, Zequn Wang, Xuhui Sun, Meng An, Dan Liu, Changsheng Zhao, Gang Zhang & Weiwei Lei

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1. **Functional Materials and Innovative Strategies for Wearable Thermal Management Applications (Review)**

Yeongju Jung, Minwoo Kim, Taegyeom Kim, Jiyong Ahn, Jinwoo Lee & Seung Hwan Ko

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1. **Tetris-Style Stacking Process to Tailor the Orientation of Carbon Fiber Scaffolds for Efficient Heat Dissipation (Article)**

Shida Han, Yuan Ji, Qi Zhang, Hong Wu, Shaoyun Guo, Jianhui Qiu & Fengshun Zhang

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1. **Self-Supporting Nanoporous Copper Film with High Porosity and Broadband Light Absorption for Efficient Solar Steam Generation (Article)**

Bin Yu, Yan Wang, Ying Zhang & Zhonghua Zhang

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1. **Ion–Electron Coupling Enables Ionic Thermoelectric Material with New Operation Mode and High Energy Density (Article)**

Yongjie He, Shaowei Li, Rui Chen, Xu Liu, George Omololu Odunmbaku, Wei Fang, Xiaoxue Lin, Zeping Ou, Qianzhi Gou, Jiacheng Wang, Nabonswende Aida Nadege Ouedraogo, Jing Li, Meng Li, Chen Li, Yujie Zheng, Shanshan Chen, Yongli Zhou & Kuan Sun

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1. **Flexible, Highly Thermally Conductive and Electrically Insulating Phase Change Materials for Advanced Thermal Management of 5G Base Stations and Thermoelectric Generators (Article)**

Ying Lin, Qi Kang, Yijie Liu, Yingke Zhu, Pingkai Jiang, Yiu-Wing Mai & Xingyi Huang

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1. **A Thermoregulatory Flexible Phase Change Nonwoven for All-Season High-Efficiency Wearable Thermal Management (Article)**

Hanqing Liu, Feng Zhou, Xiaoyu Shi, Keyan Sun, Yan Kou, Pratteek Das, Yangeng Li, Xinyu Zhang, Srikanth Mateti, Ying Chen, Zhong-Shuai Wu & Quan Shi

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1. **Ultralow Interfacial Thermal Resistance of Graphene Thermal Interface Materials with Surface Metal Liquefaction (Article)**

Wen Dai, Xing-Jie Ren, Qingwei Yan, Shengding Wang, Mingyang Yang, Le Lv, Junfeng Ying, Lu Chen, Peidi Tao, Liwen Sun, Chen Xue, Jinhong Yu, Chengyi Song, Kazuhito Nishimura, Nan Jiang & Cheng-Te Lin

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1. **Self-Modifying Nanointerface Driving Ultrahigh Bidirectional Thermal Conductivity Boron Nitride-Based Composite Flexible Films (Article)**

Taoqing Huang, Xinyu Zhang, Tian Wang, Honggang Zhang, Yongwei Li, Hua Bao, Min Chen & Limin Wu

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1. **Bifunctional Liquid Metals Allow Electrical Insulating Phase Change Materials to Dual-Mode Thermal Manage the Li-Ion Batteries (Article)**

Cong Guo, Lu He, Yihang Yao, Weizhi Lin, Yongzheng Zhang, Qin Zhang, Kai Wu & Qiang Fu

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1. **Self-Exfoliation of Flake Graphite for Bioinspired Compositing with Aramid Nanofiber toward Integration of Mechanical and Thermoconductive Properties (Article)**

Limei Huang, Guang Xiao, Yunjing Wang, Hao Li, Yahong Zhou, Lei Jiang & Jianfeng Wang

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1. **Vertical Alignment of Anisotropic Fillers Assisted by Expansion Flow in Polymer Composites (Article)**

Hongyu Niu, Haichang Guo, Lei Kang, Liucheng Ren, Ruicong Lv & Shulin Bai

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1. **High Conduction Band Inorganic Layers for Distinct Enhancement of Electrical Energy Storage in Polymer Nanocomposites (Article)**

Yingke Zhu, Zhonghui Shen, Yong Li, Bin Chai, Jie Chen, Pingkai Jiang & Xingyi Huang

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1. **Highly Thermally Conductive Polymer/Graphene Composites with Rapid Room-Temperature Self-Healing Capacity (Article)**

Huitao Yu, Can Chen, Jinxu Sun, Heng Zhang, Yiyu Feng, Mengmeng Qin & Wei Feng

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1. **Interconnected MXene/Graphene Network Constructed by Soft Template for Multi-Performance Improvement of Polymer Composites (Article)**

Liyuan Jin, Wenjing Cao, Pei Wang, Na Song & Peng Ding

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1. **Efficient Preconstruction of Three-Dimensional Graphene Networks for Thermally Conductive Polymer Composites (Article)**

Hao-Yu Zhao, Ming-Yuan Yu, Ji Liu, Xiaofeng Li, Peng Min & Zhong-Zhen Yu

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1. **Emerging Flexible Thermally Conductive Films: Mechanism, Fabrication, Application (Review)**

Chang-Ping Feng, Fang Wei, Kai-Yin Sun, Yan Wang, Hong-Bo Lan, Hong-Jing Shang, Fa-Zhu Ding, Lu Bai, Jie Yang & Wei Yang

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1. **Hierarchically Multifunctional Polyimide Composite Films with Strongly Enhanced Thermal Conductivity (Article)**

Yongqiang Guo, Hua Qiu, Kunpeng Ruan, Yali Zhang & Junwei Gu

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