

【Forum H】ICAFPM 2025 Gelatinous Fibers and Intelligent Devices
H. 凝胶纤维与智能器件

Topic: From Gelatinous Material Frontiers to Emerging Intelligent Systems
Chairman: Prof. Xinmin He, University of California, Los Angeles; Prof. Panchao Yin, South China University of Technology;
Prof. Feng Yan, Donghua University; Prof. Shuguang Yang, Donghua University.



Nov. 1, 2025 Afternoon (下午) Venue: Shanghai Hall 上海厅

Session H Moderator: Shery Huang, Ziliang Wu

Time	Type	Speaker	Title	Affiliation
13:30-13:50	Keynote	Shery Huang	Skin-imperceptible Bioelectronics via Multi-scale Biofabrication	University of Cambridge 剑桥大学
13:50-14:10	Keynote	Ziliang Wu 吴子良	Room Temperature Phosphorescence Behavior Due to Restricted Segments of Hydrogel Chains	Zhejiang University 浙江大学
14:10-14:25	Invited	Xuetong Zhang 张学同	Silica Aerogels: Design, Synthesis and Performance	Suzhou Institute of Nano-Tech and Nano-Bionics 中国科学院苏州纳米所
14:25-14:40	Invited	Di Jia 贾迪	Universal Law of Hierarchical Dynamics in Gels Arising from Confluence of Local Physically Dynamic Bonds	Institute of Chemistry, Chinese Academy of Sciences 中国科学院化学研究所
14:40-14:55	Invited	Taolin Sun 孙桃林	Investigation of Variable-Stiffness Intelligent Polymers and Their Actuator Applications	South China University of Technology 华南理工大学
14:55-15:10	Invited	Mingxin Zhang 张明鑫	Research on Enhancing Water Evaporation Rate on Material Surfaces	Hainan University 海南大学
15:10-15:25	Invited	Guoqing Zu 祖国庆	Oriented Nanochannel Aerogels for Organic Electrochemical Transistors and Biosensors	Tongji University 同济大学
15:25-15:40	Invited	Liangjiu Bai 柏良久	Cellulose Nanocrystals-Based Self-Healing and Anti-Freezing Hydrogels: Design and Applications	Ludong University 鲁东大学
15:40-16:00	Coffee Break (茶歇)			

Session H Moderator: Qian Zhao, Yulan Chen

16:00-16:20	Keynote	Qian Zhao 赵骞	Shapeable Acoustic Coupling Material Based on Dynamically Cross-Linked Polymer Fiber Composites	Zhejiang University 浙江大学
16:20-16:35	Invited	Yulan Chen 陈于蓝	Mechanically Induced Circularly Polarized Luminescence from Polymers	Jilin University 吉林大学
16:35-16:50	Invited	Kunpeng Cui 崔昆朋	Deformation and Fracture Behaviors of Tough Plasticized Poly(vinyl butyral)	University of Science and Technology of China 中国科学技术大学
16:50-17:05	Invited	He Cheng 程贺	The Very Small Angle Neutron Scattering Instrument at China Spallation Neutron Source and Its Applications in Gels and Smart Devices	China Spallation Neutron Source 中国散裂中子源
17:05-17:20	Invited	Xiaolin Lv 吕晓林	Research on the Design and Application of Ionic Conductive Soft Materials	Fuzhou University 福州大学
17:20-17:35	Invited	Guoyin Chen 陈国印	Integrated Dynamic Wet Spinning of Hydrogel Optical Fibers for Photomedicine in Deep Body	Donghua University 东华大学
17:35-17:50	Invited	Jingqiang Cui 崔景强	The Application of Flexible sensors in Medical devices	Tuoren Medical Device Group Co., Ltd. 驼人控股集团有限公司

17:50-17:58	Oral	Yanting Li 李彦亭	Fast Gelation of Multi-Functional Hydrogels for Wearable Sensors and Piezoionic Nanogenerators	Shanghai Jiao Tong University 上海交通大学
17:58-18:06	Oral	Sen Ding 丁森	A Human-Machine Interactive Interface Using Eigenfrequency-Dominant Mechanism	University of Macau 澳门大学

Nov. 2, 2025 Morning (上午) Venue: Shanghai Hall 上海厅

Session H Moderator: Xiangling Gu, Pengfei Song

8:30-8:50	Keynote	Ximin He 贺曦敏	Designing Fiber Materials from Polymer Network Control	University of California, Los Angeles 加州大学洛杉矶分校
8:50-9:05	Invited	Xiangling Gu 顾相伶	Self-Reinforcing Hydrogel Upon Alcohol-Out Effect	Dezhou University 德州学院
9:05-9:20	Invited	Pengfei Song 宋鹏飞	Construction of Natural Polymer-based Intelligent Gel Fibers for Flexible Devices and Controlled Drug Release	Northwest Normal University 西北师范大学
9:20-9:35	Invited	Kun Dai 代坤	Fabrication and Strain-Sensing Properties of Polymer-Based Conductive Composite Fibrous Mats	Zhengzhou University 郑州大学
9:35-9:50	Invited	Yanan Ye 叶亚楠	Ultra-Low Hysteresis Under Large Deformation Enabled by Fast Chains Relaxation in Highly Competitive Dynamic Hydrogen Bond Networks	University of Science and Technology of China 中国科学技术大学
9:50-10:05	Invited	Bencai Lin 林本才	Chemical Structure Design and Performance Study of Alkaline Anion Exchange Membranes	Changzhou University 常州大学
10:05-10:25	Coffee Break (茶歇)			
10:25-10:45	Keynote	Dongsheng Liu 刘冬生	Nucleic Acid Supramolecular Hydrogel	The Hong Kong Polytechnic University 香港理工大学
10:45-11:00	Invited	Ji Liu 刘吉	Functional Hydrogels-based Biointerfacing Technologies	Southern University of Science and Technology 南方科技大学
11:00-11:15	Invited	Jun Fu 付俊	Fiber-reinforced Anisotropic Hydrogels for Smart Devices	Sun Yat-sen University 中山大学
11:15-11:30	Invited	QiuHong Zhang 张秋红	Sliding-ring Gels	Nanjing University 南京大学
11:30-11:45	Invited	Shuo Bai 白硕	Development of Intelligent Hydrogel Devices for Human-machine Interface	Institute of Process Engineering, Chinese Academy of Sciences 中国科学院过程工程研究所
11:45-12:00	Invited	Qingyun Guo 郭庆云	Mesostructured Materials: Precision Macromolecular Synthesis, Self-Assembly, and Functionalities	Donghua University 东华大学

Nov. 2, 2025 Afternoon (下午) Venue: Shanghai Hall 上海厅

Session H Moderator: Kan Yue, Guanghui Gao

13:30-13:50	Keynote	Kan Yue 岳衍	Ion-Conducting Polymer Gels	South China University of Technology 华南理工大学
13:50-14:05	Invited	Guanghui Gao 高光辉	An Integrated All-fiber-based Sensing System for Monitoring Humidity Physiological Signals	Changchun University of Technology 长春工业大学

14:05-14:20	Invited	Renhua Deng 邓仁华	Printable Nano-composite Superlattice Materials and Floating Gate Memory	Huazhong University of Science and Technology 华中科技大学
14:20-14:35	Invited	Xiaokong Liu 刘小孔	Hydrogen-Bond-Mediated Polymers: Mechanical Properties, Sustainability, and Functionality	Jilin University 吉林大学
14:35-14:50	Invited	Lipeng Zhai 翟黎鹏	Lithium Batteries: Structural Design of Covalent Organic Frameworks	Zhengzhou University 郑州大学
14:50-15:05	Invited	Jiaqing Xiong 熊佳庆	Advanced Fiber Materials toward Soft Intelligent Systems	Donghua University 东华大学
15:05-15:20	Invited	Haisong Qi 祁海松	Cellulose Based Materials for Sensors	South China University of Technology 华南理工大学
15:20-15:35	Invited	Meng Gao 高萌	Printing Fabrication and Adhesive Interface Control Strategies for Flexible Electronic Devices	Tianjin University of Science and Technology 天津科技大学
15:35-15:55	Coffee Break (茶歇)			
Session H	Moderator: Shuguang Yang,Weizheng Li			
15:55-16:15	Keynote	Shuguang Yang 杨曙光	Time-Humidity-Temperature Equivalence of Polymer Complex Fibers	Donghua University 东华大学
16:15-16:30	Invited	Weizheng Li 李维政	High-strength and Tough Ionogel Elastomer Material	Soochow University 苏州大学
16:30-16:45	Invited	Panchao Yin 殷盼超	The Diffusive Dynamics of Nano-Rod Under Nano-Confinement	South China University of Technology 华南理工大学
16:45-17:00	Invited	Jia Wei 韦嘉	Molecular Design and Structural Tuning of Photodeformable Polyimides	Fudan University 复旦大学
17:00-17:08	Oral	Ming Lei 雷铭	Optimization of Wearable and Flexible Pressure Sensors Based on Carbon-Based Microstructures	University of Macau 澳门大学
17:08-17:16	Oral	Hao Huang 黄浩	The Dynamic Relaxation Behavior of Polyelectrolyte Complex Fiber Under Multi-Fields Coupling	Donghua University 东华大学
17:16-17:24	Oral	Cong Yu 俞聪	Electroluminescent Fibres with Exceptional Environmental Stability	Donghua University 东华大学