中国微米纳米技术学会
第二十一届学术年会暨第十届国际会议

CSMNT 10th International Conference of Micro-Nano Technology

程序册

Program

中国·武汉 2019年10月11-14日

October 11-14, 2019, Wuhan, China

中国微米纳米技术学会
第二十二届学术年会暨第十一届国际会议

CSMNT 11th International Conference of Micro-NanoTechnology

CSMNT 11TH INTERNATIONAL CONFERENCE OF MICRO-NANO TECHNOLOGY

微纳科技

会议时间：2020年10月
会议地点：中国·哈尔滨市

组 织 机 构

【主办单位】中国微米纳米技术学会

【承办单位】武汉大学

【协办单位】湖北省青年科技工作者协会

【支持单位】教育部、国家自然科学基金委员会、国家纳米科学中心、国家纳米技术与工程研究院、湖北省科协

【会务承办】北京四方会展服务有限公司

【大会主席团】

主　席：　尤　政　　共主席：　蒋庄德　刘忠范

【程序委员会】

主　席：　王立鼎　　副主席：　解思深　周兆英

委　员：　白春礼　包信和　陈　军　成会明　崔天宏　邓中亮　丁衡高　顾秉林

洪茂椿　胡小唐　黄　如　黄庆安　江　雷　金玉丰　李亚栋　刘维民

刘晓为　卢　柯　欧　黎　邱介山　权海洋　石志宏　孙立宁　孙世刚

田中群　王　琛　王　政　王跃林　徐志磊　薛其坤　杨克武　杨万泰

姚建年　赵东元　赵宇亮　邹志刚

【组织委员会】

主　席：　王晓浩　　共主席：　刘　胜　　副主席：　孙成亮　唐　飞

委　员：　常洪龙　陈　兢　陈华伟　褚家如　丁建宁　方　群　高　杨　官建国

郝一龙　贺　强　黄文浩　金仲和　李　倩　李隆球　李明林　李　铁

刘　冲　刘军山　刘鸣华　刘世元　陆　洋　路新春　马岸英　缪向水

钱林茂　石庚辰　宋玉军　苏　伟　田文超　唐智勇　王曾晖　王大志

王卫东　王钻开　韦学勇　温志渝　吴学忠　吴亚林　吴一辉　夏善红

熊继军　许建中　杨　辉　杨　湛　杨晋玲　杨拥军　叶雄英　苑伟政

张德远　张其清　张宇峰　赵立波　赵亚溥　赵玉龙　赵晓锋　朱　健

【大会秘书处】

主办方：　李　娟　刘　颖　尹海华　张佳惠　张　鹏

承办方：　胡　浩　彭　茜

（按姓氏拼音排序）

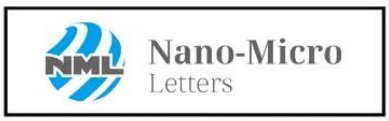
赞助单位

（排名不分先后）


IntelliSense


RDMICRO


摩方精密
BMF Precision


Nano-Micro
Letters

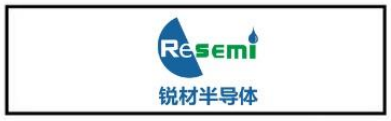

nano
scribe


Microsystems &
Nanoengineering
www.nature.com/micronano


MEMSTools


意得辑
editage
by CACTUS


微纳科技


Resemi
锐材半导体


AIP
Publishing


Lead MEMS
Focus on MEMS OEM


GERMAN TECH
北京汇德信科技有限公司


CADSONIC


原位芯片
微纳代工


BRUKER


KEJING


LEBO
science


PHENOMSCIENTIFIC
飞 纳 电 镜

CSMNT2019 优秀海报评选

为丰富会议形式、提高交流效果、鼓励科学研究，CSMNT2019 继续组织优秀海报评选活动。相关事项说明如下：

（一）评审原则

本次评选遵循“科学公正、严格筛选、创新优先”的原则。

（二）奖项数量及表彰奖励

1. 一等奖 1 名：获奖证书、奖金 500 元、《Nanoscale》（SCI）免费在线订阅一年；
2. 二等奖 2 名：获奖证书、奖金 400 元、《Nanoscale》（SCI）免费在线订阅一年；
3. 三等奖 3 名：获奖证书、奖金 300 元、《Nanoscale》（SCI）免费在线订阅一年；
4. 优秀奖 6 名：获奖证书、《Nanoscale》（SCI）免费在线订阅一年。

注：本届奖项由学会与英国皇家化学会共同举办，评选结果将在会后公布并表彰。

（三）评审标准

评分项目	具体说明	分数
学术价值（内容）	研究成果的创新性、先进性（25 分）	60 分
	研究成果的实用性、应用性（20 分）	
	研究成果是否具有明显的研究漏洞（15 分）	
现场答疑（表述）	准确、流畅的进行介绍、答疑（25 分）	40 分
	海报简洁明了、详略得当（15 分）	

（四）其他事项

1. 本次评审由领域专家组成，专家现场对海报作者进行提问、打分，并对打分结果进行会议复议，最终选出获奖人选。
2. 未按海报制作说明制作提交电子版海报、未按日程安排到指定地点现场答疑，视为自动放弃本次评选。

中国微米纳米技术学会

2019 年 9 月

目录

参会须知

The Guide of Conference

尊敬的各位参会代表：

首先，感谢您参加中国微米纳米技术学会第二十一届学术年会暨第十届国际会议（CSMNT2019）！为保证顺利参会，请仔细阅读以下注意事项。

一、衣食住行

衣	十月中旬武汉平均温度在 15℃-23℃；白天平均 23℃，建议穿单层棉麻面料短套装、休闲服等舒适的衣服；夜间平均 15℃，建议穿夹衣、风衣等。
食	①会议期间，大会统一安排参会人员（交会议注册费）就餐； ②餐饮包括：12 日午餐/晚餐/茶歇，13 日午餐/晚餐/茶歇，14 日茶歇； ③自助餐地点：湖畔西餐厅、凤凰轩中餐厅 晚宴地点：凤凰宴会厅 ④餐券将在签到台注册时发放，凭餐券就餐、丢失不补。
住	①大会提供宾馆预订服务，费用自理； ②凡通过会议网站预订宾馆的参会人员，请到注册台办理入住登记、交费、开具发票； ③大会合作酒店为碧桂园凤凰酒店（会场所在酒店），经会务组考察性价比较高。
行	具体乘车路线，请参照“交通指南”（第 93 页）。

二、注意事项

1. 报到时间：10 月 11 日 07:00-22:00、10 月 12 日 07:00-08:30；
2. 报到地点：武汉市碧桂园凤凰酒店大堂；
3. 大会报告人、分会场报告人请提前将 PPT 拷贝至会场电脑；
4. 为提高报到效率，请提早抵达会场，有序报到；
5. 现场注册交费的会员/学生代表，请务必携带学生证或会员证等证明身份的证件，否则一律按普通代表注册缴费；
6. 10 月 12 日开幕式及大会主旨报告会场需凭证件入场，请尽可能在 10 月 11 日报到，确保顺利参会
7. 注册当天，可刷卡/现金/微信支付；
8. 请大家按照会议手册日程安排准时入场，会议期间将手机调至静音状态。

祝您有个愉快的参会旅程！

CSMNT2019 组委会

2019 年 10 月 11 日

CSMNT2019 会议日程

The Programme of Conference

时间	会议	会议内容	发言人	地点
2019 年 10 月 11 日				
07:00-22:00	会议注册		碧桂园凤凰酒店-大堂	
14:00-17:10	CSMNT2019 论文写作与期刊投稿交流会		隆中厅	
19:00-21:00	中国微米纳米技术学会三届五次理事会暨十四次常务理事会			黄鹤楼厅
2019 年 10 月 12 日				
07:00-08:30	**会议注册**		碧桂园凤凰酒店-大堂	
08:30-09:00	**开幕式**		**主持人：王晓浩**	凤凰宴会厅
主持人：刘胜				
09:00-09:35	大会报告 1	*Mode-Locked Quantum Dot Lasers for Multi Terabit Data Communicatio*	Dieter Bimberg	
09:35-10:10	大会报告 2	纳米光腔的超灵敏光谱检测	徐红星	
10:10-10:40	大会合影、茶歇			
主持人：黄庆安				凤凰宴会厅
10:40-11:15	大会报告 3	多级结构功能介孔材料的界面组装	赵东元	
11:15-11:50	大会报告 4	*Nanostructure-based Plasmon-enhanced Spectroscopy and Chemical Reaction: State of Art and Look Forwards*	田中群	
11:50-12:25	大会报告 5	*Lattice Dynamics of Laser Heated Thin Films and Surfaces Studied by Ultrafast Electron Diffraction*	Hani E. Elsayed. Ali	
12:25-14:00	**自助午餐**			湖畔西餐厅 凤凰轩中餐厅

时间	会议	会议内容	发言人	地点
主持人：王跃林				凤凰宴会厅
14:00-14:35	大会报告 6	碳基纳米笼——能源储存于转化的新材料平台 *Carbon-based Nanocages: A New Platform for Advanced Energy Conversion and Storage*	胡征	
14:35-15:10	大会报告 7	*Electrothermal Micromirrors for 3D Sensing and Imaging*	Huikai Xie	
15:10-15:45	大会报告 8	原子尺度制造与应用	孙立涛	
16:45-16:00	**茶歇**			
主持人：李志宏				凤凰宴会厅
16:00-16:35	大会报告 9	*Multiscale Sensing Technologies of Mechanical Interactions for Biomedical Applications*	Fumihito Arai	
16:35-17:10	大会报告 10	新能源领域的微纳技术 *Micro/nano Technology in The Field of New Energy*	丁建宁	
17:00-17:35	大会报告 11	*Modeling Based Development and Challenges of Key Electronic Manufacturing Chain Equipment*	刘胜	
19:00-20:30	**欢迎晚宴**			凤凰宴会厅
2019 年 10 月 13 日				
时间	**分会场主题**		**分会场主席**	**地点**
08:00-12:30	微纳传感器/执行器分会场		张宇峰、赵晓锋	隆中厅
	微纳米材料分会场		宋玉军	黄鹤楼厅
	微纳加工制造分会场		王大志、赵立波	东湖厅
	纳米精度制造分会场		钱林茂、路新春	三峡厅
	微纳机电系统分会场		韦学勇、王曾晖	汉南厅
	微纳流控芯片系统与应用分会场		方群	神龙厅
12:15-14:00	**自助午餐**			湖畔西餐厅

时间	分会场主题	分会场主席	地点
14:00-18:25	微纳米力学与表征技术分会场	王卫东、陆洋、李明林	隆中厅
	微纳表征与测量分会场	刘世元	黄鹤楼厅
	微纳能源技术分会场	丁建宁	东湖厅
	微纳米马达与微纳米智能机器人分会场	官建国、贺强	三峡厅
	微纳米生物医药分会场	张其清	汉南厅
	微纳米光子学分会场	吴一辉、李铁	神龙厅
18:25-19:30	自助晚餐		湖畔西餐厅
2019 年 10 月 14 日			
时间	分会场主题	分会场主席	地点
08:00-12:00	微纳传感器/执行器分会场	张宇峰、赵晓锋	隆中厅
	微纳米技术应用分会场	王跃林	黄鹤楼厅
	微纳仿生制造分会场	陈华伟、王钻开	东湖厅
	超表面透镜的设计、加工及应用分会场	黄文浩、黄坤	三峡厅
	射频/微波/太赫兹微纳器件与系统分会场	高杨、杨晋玲	汉南厅
	封装技术分会场	田文超	神龙厅
12:00-18:00	离会		

CSMNT2019 论文写作与期刊投稿交流会

Journals Session

日程安排

时间：2019 年 10 月 11 日下午

地点：隆中厅

活动安排：报告 35 分钟/位+提问 10 分钟

时间	期刊	报告信息
主持人：王卫东教授 西安电子科技大学		
14:00-14:45	**Micromachines (SCI)**	报告题目：Micromachines 报告人：Mengdie Hu 职务/职称：Managing Editor
14:45-15:30	**Nanoscale（SCI）**	报告题目：Publishing with the Royal Society of Chemistry 报告人：张同欢 职务/职称：博士，中华区副出版人
15:30-15:40	**休息**	
主持人：常凌乾教授 北京航空航天大学		
15:40-16:25	**AIP Advances (SCI)**	报告题目：How to Publish with international Journals- What Editors Want 报告人：艾星涛 职务/职称：AIP 北京首席代表
16:25-17:10	**Materials(SCI)**	报告题目：Materials 期刊介绍与投稿注意事项 报告人：黄凤琴 职务/职称：助理编辑

中国微米纳米技术学会三届五次理事会
暨十四次常务理事会
Meeting of Excutive Councile

时间：19:00 至 21:00，2019 年 10 月 11 日

地点：黄鹤楼厅

主持：中国微米纳米技术学会副理事长兼秘书长

清华大学深圳国际研究生院副院长

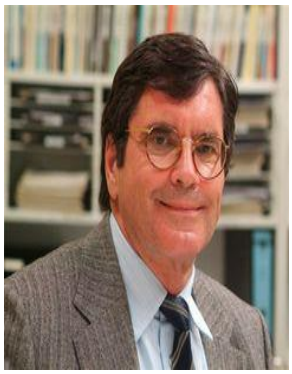
王晓浩　教授

19:00-19:05	宣布会议安排介绍来宾
19:05-19:30	2018-2019 年度学会秘书处办公室 工作报告及 2019-2020 年度工作计划
19:30-19:40	CSMNT2019 筹备工作介绍
19:40-19:50	第二十二届学术年会暨第十一届国际会议 承办单位准备工作进展介绍（CSMNT2020）
19:50-20:20	第二十三届学术年会暨第十二届国际会议 承办单位投标及确定（CSMNT2021）
20:20-20:50	讨论、表决
20:50	合影

大会报告摘要及报告人简历

Plenary Presentations

Mode-Locked Quantum Dot Lasers for Multi Terabit Data Communicatio



Dieter H. Bimberg is the Founding Director of the Center of Nanophotonics at TU Berlin and serves now as CEO of the new Chinese-German Center for Green Photonics at CIOMP. He was chairman of the Department of Solid State Physics at TUB from 1991 to 2012. His research interests include the growth and physics of nanostructures and nanophotonic devices, ultrahigh speed and energy efficient photonic devices for information systems, like quantum dot based mode-locked lasers and DFB lasers and ultimate nanoflash memories based on quantum dots. He has authored more than 1500 papers, 60 patents, and 7 books resulting in more than 56,000 citations and a Hirsch factor of 106. His honors include the Russian State Prize in Science and Technology 2001, his election to the German Academy of Sciences Leopoldina in 2004, to the Russian Academy of Sciences in 2011, to the American Academy of Engineering in 2014, to the American Academy of Inventors 2016. He is Fellow of the American Physical Society and IEEE since 2004 and 2010, respectively. He received the Max-Born-Award and Medal 2006, awarded jointly by IoP and DPG, the William Streifer Award of the Photonics Society of IEEE in 2010, the UNESCO Nanoscience Award and Medal 2012, Heinrich-Welker-Award 2015 and Nick Holonyak jr. Award of OSA in 2018. In 2019 he received the IEEE Nishizaza Award and Medal.

Abstract:
The rapidly growing demand for higher data rates in metropolitan area networks, local area networks, and optical access networks, requires novel ultra-high bit rate sources, which are more energy efficient than any semiconductor laser sources presently existing. Quantum Dot Lasers based on GaAs emit up to the O-band at 1.3 μm. They show record low threshold current density, and complete temperature stability up to 80 ℃. Emission from the saturated ground state shows a hat-like structure with intensity differences of the longitudinal modes below 0.5 db. Passive mode-locking generates pulses down to the sub- ps range at repetition rates up to 90 GHz. Optical self-feed-back reduces the jitter to 200 fs and reach electrical line-width of 2 kHz. PML QD-lasers are also excellent microwave sources showing the same extremely small phase noise as the optical pulses. Multiplexed 80 Gbit/s RZ OOK based on PML-QDLs and Mach-Zehnder modulators show a S/N of 12, rms timing jitter of 452 fs and BER below 10exp-9. Data transmission across 45 km using RZ Differential Quadrature Phase-Shift Keying (DQPSK) with BER below 10exp-11 is demonstrated. The hat spectrum of one single laser of several tens of closely spaced narrow is a pulse source for bit rates ~ 6 TBit/s**.**

纳米光腔的超灵敏光谱检测

徐红星，物理学家。武汉大学教授。江苏灌云人。毕业于北京大学，瑞典查尔莫斯理工大学硕士和博士学位。2017年当选为中国科学院院士。主要从事等离激元光子学、分子光谱和纳米光学的研究。发现成对金属纳米颗粒在光场作用下能够在其纳米间隙中产生巨大的电磁场增强效应，是单分子表面增强拉曼光谱的原因，也是其它基于纳米间隙效应研究的物理基础；提出了等离激元光学力和单分子捕获、表面增强拉曼与表面增强荧光统一的理论，发现表面增强光谱的纳米天线效应，研发了针尖增强拉曼光谱系统，实现等离激元催化反应。发现纳米波导等离激元的激发、传播、发射、与激子相互作用的物理机理和调控机制；在纳米波导网络中实现光子路由器、完备的光逻辑、半加器和光逻辑的级联。

在国际著名科学杂志发表论文 180 余篇，被 SCI 杂志引用 12500 余次，单篇引用超过 100 次的 34 篇，h 因子 55。他已作国际会议邀请报告 60 余次；作为会议主席组织了十余次国际著名学术会议，担任多个重要国际学术会议的指导委员会或程序委员会委员；曾任 Nanoscale 和 Optics Express 副主编，任 Nanophotonics、Frontiers of Physics 等期刊编委；2014-2016 年连续入选 Elsevier 发布的中国高被引学者榜；受邀撰写邀请综述十余篇，包括 Chemical Reviews、Materials Today 等，受邀出版专著《Nanophotonics: Manipulating Light with Plasmons》。

徐红星教授是长江学者奖励计划特聘教授，2006 年获国家杰出青年科学基金，2013 年获国务院政府特殊津贴。曾入选中国科学院百人计划，获中国青年科技奖、中国科学院青年科学家国际合作奖、中国物理学会饶毓泰物理奖等，入选创新人才推进计划中青年科技创新领军人才、国家百千万人才工程有突出贡献中青年专家和国家高层次人才特殊支持计划领军人才（万人计划）。作为首席科学家或项目负责人主持了科技部重大科学研究计划项目、国家自然科学基金重点项目、中科院知识创新工程重要方向项目等多项科研项目。

摘要：

表面等离激元是金属表面的自由电子在光作用下的集体振荡，可以把光场束缚在金属纳米结构表面，从而突破了传统的光的衍射极限，是纳米光学和表面增强光谱学等新兴领域的重要基础，相关的研究形成迅速发展的等离激元光子学。在本报告中，主要讲述具有巨大增强效应的等离激元纳米光腔的发现，原理和应用，其原理为：金属纳米结构在光场的作用下能够产生强烈的等离激元共振，驱动金属纳米结构上的自由电子通过纳米间隙产生电磁耦合，将特定频率的光束缚在极其微小的空间中，产生巨大的电磁场增强效应及其它相关效应；利用纳米光腔的奇异光学性质，可以实现纳米结构亚皮米精度的表征，激子和等离激元的强耦合，巨大增强光场强度以及纳米光腔中激子荧光寿命的精确估算等。

多级结构功能介孔材料的界面组装

赵东元

复旦大学教授，2000 年入选教育部长江“特聘教授”，2007 年被增选为中科院院士。2010 年被增选为第三世界科学院（TWAS）院士。

个人简历：

赵东元教授，1963 年出生于沈阳市。1980 年考入吉林大学化学系，1984 年获得理学学士学位，1987 年获吉林大学化学系理学硕士学位。1990 年获吉林大学和大连化学物理研究所物理化学专业理学博士学位。1993 ~ 1994 年在以色列魏兹曼科学院化学物理系做博士后。1995 ~ 1996 年在美国休斯顿大学化学系做博士后。1996 ~ 1998 年在美国加州大学圣芭芭拉分校材料系和化学系做博士后。

主要从事沸石分子筛、纳米介孔材料合成、结构和在催化、电池、生物、水处理等能源方向应用的研究工作。在国际重要刊物上发表SCI论文700余篇，获中国专利授权39项。论文被引用近9.8万次 （h index = 151）。被ISI Web of Science列为近十年100名引用率最高的化学家之一（排名65），被汤森路透社列为全球2011-2018化学、材料两个领域高被引科学家；也被列为最具国际影响力的中国科学家。获国家自然科学二等奖（2004）；发展中国家科学院TWAS化学奖（2008）；国际介观结构材料协会IMMA成就奖（2008）；何梁何利科学进步奖（2009）；印度化学会Rao Award（2013）；世界科学院科学奖TWAS-Lenovo科学奖（2016）；中国化学会-化学贡献奖（2017）；中国分子筛成就奖（2017）；国际胶体界面科学Darsh Wasan Award（2018）；国际Khwarizmi International Award (KIA) (2019)。曾任国际介观结构材料协会IMMA主席，国际沸石协会理事，英国皇家化学会Journal of Materials Chemistry主编（Editor-in-Chief），现任国际刊物ACS Central Science编辑，十几种国际重要刊物如：Journal of The American Chemical Society、Joule等国际刊物的编委、顾问编委。实验室网址：http://www.mesogroup.fudan.edu.cn

摘要:

功能介孔材料不仅具备介孔材料的独特性质，如高比表面积、孔道尺寸和孔容均一可控，而且具有无机功能纳米颗粒优异的光学、电学、磁学等特性。因此多级结构功能介孔材料在催化、吸附、分离、生物医药等众多领域中都有广阔的应用前景。这里，我们主要阐述近年来在界面组装调控实现取向组装可控合成多级结构功能介孔材料方面的研究进展。基于界面组装调控这一核心思想，我们发展了一系列合成多级结构功能介孔材料新方法，包括微乳限域自组装法、液-液界面两相法、挥发驱动定向组装、介孔各向异性生长法、界面驱动定向组装等。利用这些新型合成方法，能够可控制备一系列新型多级结构功能 SiO2、TiO2、C 基介孔材料，如核@壳、蛋黄@壳、多层核壳、三维花束状多级结构等，还包括双面神、半球、中空单开口等非对称多级结构。所制备的一系列多级结构功能介孔材料不仅形貌独特、均一，而且具有可控的介观孔道结构、高比表面积、大的孔容和开放的孔道。正是由于其独特的结构及功能性，使得这些材料在催化、吸附、分离、光电转化与存储及生物医药等领域展现出非常好的应用前景。

Nanostructure-based Plasmon-enhanced Spectroscopy and Chemical Reaction: State of Art and Look Forwards

田中群

厦门大学教授，2005 年当选为中国科学院院士，2014 年当选为第三世界科学院院士，2016 年当选为国际电化学会主席(任期 2019-2020)。现任教育部 2011 计划能源材料化学协同创新中心主任和厦门大学工程技术学部主任。。

个人简介

1977 年考入厦门大学化学系，1982 年本科毕业，通过国家教委考试，1983 年前往英国南安普敦大学化学系，师从英国皇家学会院士 Fleischmann 教授，1987 年获博士学位后即回到厦门大学做博士后，参加固体表面物理化学国家重点实验室的建设,1989-1991 任厦门大学化学系副教授，1991 年底被破格提升为教授。1996 年获国家自然科学基金委杰出青年基金，2001 年被聘为教育部“长江学者奖励计划”特聘教授。

Abstract：

The excitation of surface plasmons (SPs) — collective oscillation of conduction-band electrons in nanostructures — can afford photon, electron and heat energy redistribution over time and space. In the field of nanoelectrochemistry, nano-characterization and fabrication are two branches under explosion. By using plasmonic nanostructures, even the Raman spectra of sub-monolayer quantity of molecules at electrochemical interfaces can be detected. We have made use of this ability, plasmon-enhanced Raman spectroscopy (PERS) including SERS/TERS/SHINERS with ultra-high sensitivity to study various electrochemical systems, including single crystal electrodes, electrocatalysis and lithium batteries. Recently, together with other groups, we have developed plasmon-mediated chemical reactions (PMCRs), showing the potential to have a large impact on the practice of chemistry. PMCRs exhibit some obvious differences from and potential advantages over traditional thermochemistry, photochemistry and photocatalysis. Our physicochemical understanding of PMCRs is still far from complete. We analyze the similarities and distinctive features of PEMS and PMCRs and compare PMCRs with traditional photochemical and thermochemical reactions. We then discuss how PMCRs can be improved by rationally designing and fabricating plasmonic nanostructures, selecting suitable surface and interface mediators and teaming them synergistically.

Lattice Dynamics of Laser Heated Thin Films and Surfaces Studied by Ultrafast Electron Diffraction

Hani E. Elsayed-Ali

Professor of Old Dominion University

Biography

Received his BS degree from the University of Miami, Florida, in December 1979, his MS and Ph.D. degrees from the University of Illinois, Urbana, Illinois in January 1982 and January 1985, respectively, all in electrical engineering. Upon graduation, he worked as a visiting assistant professor at the University of Illinois conducting research in the areas of gas discharges and thin film deposition. In December 1985, he joined the Laboratory for Laser Energetics at the University of Rochester as a scientist. At Rochester he worked on femtosecond and picosecond laser probing of electronic and structural properties of material surfaces and thin films. He joined Old Dominion University in December 1992 and he is currently Batten Endowed Professor and Eminent Scholar of Electrical Engineering. His current research interests are mainly in laser-solid interactions, ultrafast laser probing of surface and thin film reactions, and thin film fabrication and characterization. He authored and co-authored over 130 refereed journal articles and holds 3 patents. He was the recipient of the ODU 16th Annual Faculty Research Award in 2000, Excellence in Innovation in Hampton Roads Award from the Hampton Roads Technology Council in 2006, and the ODU Doctoral Mentoring Award in 2012.

Abstract：

Ultrafast electron diffraction (UED) is used to probe the lattice dynamics of picosecond and femtosecond laser-heated thin films and surfaces. In UED, a photoactivated electron gun is used to produce electron pulses that are synchronized with an ultrafast laser pulses. The temporal resolution of the UED system depends on the laser pulse width and electron pulse broadening. Pump-probe experiments are conducted by a variable spatial time delay between the laser pulse photoactivating the cathode of the electron gun and that interacting with the sample. Examples of studied performed at Old Dominion University on surface dynamics of In(111) and Ge(111) single crystal and on Bi and Sb thin film and nanoparticles are presented.

Carbon-based Nanocages: A New Platform for Advanced Energy Conversion and Storage 碳基纳米笼——能源储存于转化的新材料平台

胡征

南京大学化学化工学院教授、博导。

个人简介

国家杰出青年基金获得者(05)，教育部长江学者特聘教授(07)，教育部创新团队带头人(08)，能源纳米材料物理化学课题组组长，曾任介观化学教育部重点实验室主任(04-14)。于南京大学物理系获学士、硕士、博士学位(81-91)，南京大学化学系博士后(91-93)。先后在德国卡斯卢厄研究中心、英国剑桥大学、美国麻省理工学院（MIT）作博士后及华英学者。长期在化学、物理、材料的交叉学科领域进行探索，从物理化学及功能材料的角度，围绕纳米/介观结构新材料的生长机理、材料设计、能源转化/储存功能及其调控机制开展研究工作，取得系列进展。在 Acc. Chem. Res./Chem. Soc. Rev./Nat. Commun. /JACS/Angew. Chem. Int. Ed./Adv. Mater. /EES 等重要学术刊物或专著章节发表论文 250 余篇，他引 10000 余次，获专利 20 余项，在国际会议作主题报告及邀请报告 50 余次，培养研究生 80 余名。先后主持自然科学基金重点/面上项目、杰出青年基金、国家纳米研究重大研究计划课题、863 课题等科研和人才计划项目。获中国化学会青年化学奖、参获国家自然科学二等奖等奖励。

Zheng Hu received his BS (1985) and Ph.D. (1991) degrees in Physics from Nanjing University. After two-year's postdoctoral research in Department of Chemistry, he became an associate professor in 1993, and subsequently acquired the professor position in 1999, and Cheung Kong Scholar professor in 2007. He is the owner of the National Science Fund for Distinguished Young Scholars (2005). He spent two years in Research Center of Karlsruhe, University of Cambridge, and MIT as a postdoctoral fellow and Hua-Ying Scholar, respectively. Hu is engaged in the research field of physical chemistry and materials chemistry addressing the growth mechanism, materials design and energy applications of a range of nano-/mesostructured materials, especially the carbon-based materials,

group III nitrides and transition metal oxides. He have published over 250 peer-reviewed papers in Acc. Chem. Res., Chem. Soc. Rev., Nat. Commun., JACS, Angew. Chem. Int. Ed., Adv. Mater., Energy Environ. Sci., etc. His work has been recognized with >10000 citations and some awards including the National Natural Science Award (2nd class) in 2017. He has given more than 50 keynote/invited talks in international conferences and symposia.。

报告摘要:

纳米材料的合成正在经历从经验科学走向理性设计的转变，这种转变有赖于对生长机理的深刻认识，与此同时，纳米研究也在介观科学范畴内不断拓展及深化。基于上述趋势，我们从认识生长机理着手，以定量化的原位实验及理论计算揭示了以苯作前驱物生长碳纳米管的苯环生长机理，发明了原位模板法制备介观结构碳基纳米笼的方法。在此基础上，实现了一系列新型碳基纳米材料的设计及可控制备，进而系统地发展了一系列先进的高分散催化剂、单位点催化剂及碳基无金属催化剂，或者作为超级电容器、锂硫电池等储能器件的电极材料，展现出十分优异的能源转化及储存性能，在认识构效关系及调控机制、开发先进功能等方面取得重要进展，应用前景十分广阔。

Electrothermal Micromirrors for 3D Sensing and Imaging

Huikai Xie

Department of Electrical and Computer Engineering, University of Florida, Gainesville, Florida, USA.

Biography

Dr. Huikai Xie is a Professor at the Department of Electrical and Computer Engineering of the University of Florida (UF). He is also a distinguished professor at Beijing Institute of Technology. He received his BS in microelectronics, MS in photonics, and PhD in electrical and computer engineering from Beijing Institute of Technology, Tufts University, and Carnegie Mellon University, respectively. Before he joined UF as an assistant professor in 2002, he worked at Tsinghua University (1992-1996), Bosch Corporation (2001), and Akustica Inc. (2002). He also worked at US Air Force Research Lab as a summer faculty fellow (2007-2009). He has published over 300 technical papers and 11 book chapters and holds 30 US patents. His current research interests include MEMS/NEMS, inertial sensors, microactuators, optical MEMS, optical beam steering, LiDAR, microspectrometers and optical microendoscopy. He is an associate editor of the *IEEE Sensors Letters* and *Sensors & Actuators A*. He is a fellow of IEEE and SPIE.。

Abstract：

Scanning micromirrors are MEMS devices that can steer, modulate and switch light. In this talk, a unique type of electrothermally-actuated MEMS scanning mirrors that can generate large-range, tip-tilt-piston scanning at low driving voltage will be introduced. These electrothermal MEMS mirrors also have high fill factor and can be made into large arrays. They have become the enabling devices for various emerging applications, including endomicroscopic 3D optical imaging for early cancer detection, IR/NIR spectroscopy, 3D mapping, optical cross connects (OXC), optical phased arrays (OPA), etc. The design, fabrication, modeling and control of this type of electrothermal MEMS mirrors will be discussed in detail and how to utilize these MEMS mirrors to the above mentioned applications will be demonstrated.

原子尺度制造与应用

孙立涛

东南大学电子科学与工程学院、微电子学院(国家示范性微电子学院)院长。

个人简介

孙立涛为长江学者特聘教授、国家杰青、国家“万人计划”领军人才、2018 年科睿唯安全球高被引科学家、享受国务院特殊津贴专家。长期从事亚 10nm 传统材料及石墨烯等新型纳米材料的基础前沿与相关应用研究。发表 SCI 论文 200 余篇（其中 *Science* 2 篇, *Nature* 及子刊 13 篇），申请专利 90 多项，做国际会议邀请报告 80 余次，实现了石墨烯在环保领域应用的产业化。目前任《电子器件》杂志主编，*Materials Today Nano* 杂志编委，美国 IEEE 纳米技术委员会南京分会主席，中国电镜学会原位电子显微学专业委员会主任，国家军民融合产业技术创新战略联盟特聘专家，中国石墨烯产业技术创新战略联盟标准化委员会副主任，国家石墨烯产品质量监督检验中心顾问，欧洲科学基金会专家评审委员会委员，欧盟 “石墨烯旗舰项目”评审专家。曾获江苏省教学成果特等奖、国家教学成果二等奖，指导团队获国家小平科技创新团队等。

报告摘要：

随着电子信息产业的快速发展，核心元器件的特征加工尺寸已走向 7 纳米。在 7 纳米以下，材料的表面原子对其性能的影响将显著增强。在这种情况下，材料还能否像块体材料那样稳定？如此小尺度下如何精准表征和检测这种材料的稳定性和可能的新物性？新型纳米材料是否可派上用场？所有这些都需要在原子尺度上首先精准的表征出材料表面的结构，之后探索精准的调控表面与实现表面原子尺度制造的方法，最后基于这些原子尺度上精准制造与调控的方法实现其可能的结构组装与相关应用。本报告以小尺度纳米材料为研究对象，借助自主搭建的可实现原子分辨的原位-多场加载研究系统，探索材料表面原子尺度的精准表征、制造与可能的应用，阐明全面开展原子尺度制造与精准调控的重要性及对下一代纳电子器件研究的重要意义和深远影响等。

Multiscale Sensing Technologies of Mechanical Interactions for Biomedical Applications

Fumihito Arai

Professor of Nagoya University since 2010. Director of Center for Micro-nano Mechatronics, Nagoya University since 2013 until 2019.

Deputy Director of Institute of Nano-Life-Systems, Nagoya University since 2018.

Biography

Fumihito Arai received the Master of Eng. degree from the Tokyo Univ. of Science in 1988. He joined Nagoya University, Japan in 1989 as Research Associate. He received Dr. of Eng. from Nagoya University in 1993. Since 1998, he was Associate Professor of Department of Micro System Eng., Nagoya University. Since 2005, he is Professor of Department of Bioengineering and Robotics, Tohoku University. Since April 2010, he is Professor of Department of Mechanical Science & Engineering, Nagoya University. Since October 2010, he is Professor of Department of Micro-Nano Systems Engineering, Nagoya University. He is mainly engaging in the research fields of micro- and nano-robotics and its application to the micro- and nano-assembly and cell manipulation, bio-automation systems, medical robotic systems, Micro and Nano Electro Mechanical Systems, intelligent robotic systems.

Dr. of Eng. from Nagoya University in 1993. Assistant Professor of Nagoya University in 1994. Associate Professor of Nagoya University in 1998. Professor of Tohoku University in 2005.

Abstract：

Force Sensing is quite important for mechatronic and information systems to detect and monitor mechanical interactions. Required force measurement range is quite large and we should design appropriate sensors based on the application. There are many force sensing methods. For example, we have developed a force sensor using a quartz crystal resonator (QCR) with a wide measurement range of 1.5 ×10e+6 (0.4 mN to 600 N). The proposed sensor allows a higher allowable force with high sensitivity. There are many new applications of force sensor having wide dynamic range. For example, it is effective for measurement of biosignals. Monitoring multiple biosignals, such as heart rate, respiration cycle, and weight transitions, contributes to the health management of individuals. Moreover, there are many new applications of force sensor in multiscale sensing range. Some of our research works on multiscale sensing and application examples are introduced especially for biomedical applications.

新能源领域的微纳技术（*Micro/nano Technology in The Field of New Energy*）

Jian-ning Ding（丁建宁）1966 年出生，江苏大学教授，博士生导师。
was born in 1966, Jiangsu university professor, doctoral supervisor.

简历

从事微/纳器件及系统设计与制造、新能源材料与器件及装备、智能柔性机械电子等方面的研究工作。国务院学位办服务国家特殊需求博士学位人才培养项目—光伏材料与器件产业化制造技术负责人，江苏省 2011 光伏科学与工程协同创新中心主任、光伏科学与技术国家重点实验室培育建设点主任、新能源材料与技术优势学科负责人、太阳能电池材料与技术重点实验室主任，享受国务院政府特殊津贴专家、新世纪百千万国家级人才。曾获“中国产学研合作促进奖”、“全国石油和化工优秀科技工作者”和全国百优博士论文奖等荣誉。为中国微米纳米技术学会会士，兼中国微米纳米技术学会常务理事、中国仪器仪表学会微/纳器件与系统技术分会副理事长、中国机械工程学会摩擦学分会常务理事等学术机构职务，《Sensors & Transducers Journal》、《摩擦学学报》和《friction》等学术刊物编委。主持 863 计划、国家自然科学基金重点项目、国家重点研发计划等课题 40 余项，发表学术论文 658 篇，其中 SCI 论文 368 篇；著编作 8 部；授权发明专利 120 件；获国家科技进步二等奖 1 项、省部科技奖 12 项，中国专利银奖 1 件，在国际顶级刊物《Science》上发表论文 1 篇。

Jian-ning Ding, His research areas cover the micro/nano devices and system design and manufacturing, new energy materials and devices and equipment, intelligent flexible machinery and electronics, etc. He is the leader of the national special requirements for PhD talent cultivation project - photovoltaic materials and devices manufacturing technique, director of Jiangsu Collaborative innovation center of Photovoltaic science and engineering, director of Jiangsu Key Laboratory for Solar Cell Materials and Technology. He is the fellow of Chinese society of micro-nano technology, managing director of Chinese society of micro-nano technology，vice president of Micro/nano devices and systems technology branch of Chinese Instrument Society，managing director of the Chinese mechanical engineering society tribological branch. He is the Editorial in Sensors & Transducers Journal and Friction. Above 658 academic papers and 8 books were published and 120 national invention patents were authorized in China. He has won one second prize of national Science and technology progress award, 12 provincial Science and technology awards, one silver award of Chinese patent, and one paper published in the international top journal Science.

Abstract:

介绍近年来报告人将微纳技术应用于新能源领域所取得的工作进展。设计太阳电池表面微纳结构，提高光吸收效率，有效提升电池性能，利用表界面钝化和离子扩散控制提高载流子传输。将微纳制造技术和纳米薄膜技术应用于晶硅电池、有机-无机杂化钙钛矿电池、半导体化合物电池上，取得了显著的效果。研究了微纳结构对储能电池离子输运的影响，通过调控结构和溶剂化离子，实现了低温下锂离子电池和超级电容器正常工作。

In this presentation, the progress of the application of micro-nano technology in the field of new energy in recent years is introduced. The surface Micro-Nanostructure of solar cells was designed to improve the light absorption efficiency and the performance of solar cells. Carrier transport was improved by surface passivation and ion diffusion control. The application of micro-nano manufacturing technology and nano-film technology in crystalline silicon batteries, organic-inorganic hybrid perovskite batteries and semiconductor compound batteries has achieved remarkable results. The effect of micro-nano structure on ion transport in energy storage battery was studied. The normal operation of lithium ion battery and supercapacitor at low temperature was realized by adjusting the structure and solvation ion.

Modeling Based Development and Challenges of Key Electronic Manufacturing Chain Equipment

Sheng Liu, ChangJiang Professor of Mechanical Science and Engineering at Wuhan University, an adjunct faculty at Huazhong University of Science and Technology.

Biography

Sheng Liu is the dean of school of Power and Mechanical Engineering and also a founding executive director for Institute of Technical Sciences, one of three platforms for cross-disciplinary research at Wuhan University. He once served as tenured faculty at Wayne State University before coming back to China full time in 2006. He has over 25 years experience in LED/MEMS/NEMS/IC packaging and extensive experience in consulting with many leading multi-national and Chinese companies. Liu was awarded the White House/NSF Presidential Faculty Fellowship (PFF) in 1995, ASME Young Engineer Award in 1996, and China NSFC Overseas Young Scientist in 1999, among many awards. He has been an associate editor for IEEE Trans. on Electronic Packaging Manufacturing since 1999, an associate editor for China Science Bulletin in Engineering since 2018, an associate editor of Journal of Frontiers of Optoelectronics in China since 2007, editor of Microsystems and Nanotechnology (under Nature.com) and other two leading Chinese journals in sensors and MEMS. He was one of five National Committee Members in micro/nano manufacturing (2012-2017), once was one of the 11 National Committee Members in LED under Ministry of Science and Technology (2006-2011), currently one committee member in Key Scientific Facilities Program under MOST HighTech Center. He obtained a Ph.D. from Stanford in 1992, and got MS and BS in flight vehicle design, Nanjing University of Aeronautics and Astronautics, and he had three years industrial experience in China and USA. He has filed/granted more than 400 patents in China and the USA, has published more than 700 technical articles and three books (Wiley and Sons) in English and two books in Chinese (China Science Press). He is currently ASME Fellow and IEEE Fellow.

Abstract

Microelectronics and nanoelectronics have been driven by the Moore Law and More than Moore which are co-existing in the current industries. Multi-fields in terms of physics and even chemistry and varying scales in size are involved in the design and manufacturing of key equipment and facilities. A design platform has been established for design and optimization for the key equipment in the research and production chain for the nanoelectronics and optoelectronics. This keynote presentation will present design examples from growth equipment for 6-8in SiC crystals, MOCVD reactor for SiC, an MOCVD reactor for 72 wafers of 2in in diameter, an MOCVD reactor for Ga2O3, an MOCVD reactor for UVC-LED, MPCVD for diamond film, sputter for high temperature materials, which have been developed by our group in the past 12 years.

The research in this keynote presentation is supported by NSFC Key Equipment Recommended by Ministry of Education with contract number of 51727901.

会场索引

Presentation Guidance

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	A.M.14th, Oct.	王漱明	超构表面成像研究	超表面透镜的设计、加工及应用	三峡厅	08:00-08:15
Invitation Report	A.M.14th, Oct.	俞叶峰	Large NA and Achromatic Dielectric Metalens	超表面透镜的设计、加工及应用	三峡厅	08:15-08:30
Invitation Report	A.M.14th, Oct.	蒲明博	基于悬链线光学的超表面大视场透镜	超表面透镜的设计、加工及应用	三峡厅	08:30-08:45
Invitation Report	A.M.14th, Oct.	陈钰杰	Silicon Nitride-Based Metasurface	超表面透镜的设计、加工及应用	三峡厅	08:45-09:00
Invitation Report	A.M.14th, Oct.	秦飞	平面超临界透镜及其远场超衍射极限光场调控	超表面透镜的设计、加工及应用	三峡厅	09:00-09:15
Invitation Report	A.M.14th, Oct.	杨原牧	Metasurfaces: Towards High Performance 3D Sensing	超表面透镜的设计、加工及应用	三峡厅	09:15-09:30
Invitation Report	A.M.14th, Oct.	李贵新	光学超构表面卡塞格林成像系统	超表面透镜的设计、加工及应用	三峡厅	09:30-09:45
Invitation Report	A.M.14th, Oct.	肖淑敏	二氧化钛超构表面的设计和制备	超表面透镜的设计、加工及应用	三峡厅	09:45-10:00
Invitation Report	A.M.14th, Oct.	郑国兴	超表面材料在信息光学中的应用研究	超表面透镜的设计、加工及应用	三峡厅	10:10-10:25
Invitation Report	A.M.14th, Oct.	李向平	Interfacial Meta-Optics Approaching Atomic Thicknesses	超表面透镜的设计、加工及应用	三峡厅	10:25-10:40
Invitation Report	A.M.14th, Oct.	黄玲玲	超颖表面成像及波前调制研究	超表面透镜的设计、加工及应用	三峡厅	10:40-10:55
Invitation Report	A.M.14th, Oct.	段辉高	线描轮廓加工：一种颠覆性跨尺度超表面结构制造工艺	超表面透镜的设计、加工及应用	三峡厅	10:55-11:10

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	A.M.14th, Oct.	孙树林	微纳超构表面对近场的奇异调控	超表面透镜的设计、加工及应用	三峡厅	11:10-11:25
Invitation Report	A.M.14th, Oct.	张磊	Polarization-Dependent Optical Response Using Subwavelength Structures	超表面透镜的设计、加工及应用	三峡厅	11:25-11:40
Invitation Report	A.M.14th, Oct.	郭忠义	基于高效介质超表面透镜实现偏振信息获取	超表面透镜的设计、加工及应用	三峡厅	11:40-11:55
1475053	A.M.14th, Oct.	LI. Xiangmeng	Electrowetting of Optical Adhesive Liquid on Micro/Nanotextured Dielectric for Generating Shape-Controllable Lenses	超表面透镜的设计、加工及应用	三峡厅	11:55-12:05
Invitation Report	A.M.14th, Oct.	杨道国	面向 MEMS/传感器的柔性定制化封装技术	封装技术	神龙厅	08:00-08:25
Invitation Report	A.M.14th, Oct.	苏飞	电子封装热机械可靠性评价中的实验方法	封装技术	神龙厅	08:25-08:50
Invitation Report	A.M.14th, Oct.	田艳红	电子封装中的微纳连接技术及其在柔性电子中的应用	封装技术	神龙厅	08:50-09:15
Invitation Report	A.M.14th, Oct.	杨卓青	先进封装 tsv 孔填充工艺与转接板技术	封装技术	神龙厅	09:15-09:40
Invitation Report	A.M.14th, Oct.	陈志文	电子封装中的微观结构对宏观力学特性的影响	封装技术	神龙厅	09:40-10:00
苏州锐材半导体有限公司	A.M.14th, Oct.	吉文婷	MEMS 工艺中的光刻胶选型	封装技术	神龙厅	10:10-10:30
Invitation Report	A.M.14th, Oct.	田文超	Height Uniform Analysis of Wafer Gold Bump Electrodeposition Process	封装技术	神龙厅	10:30-10:55
Invitation Report	A.M.14th, Oct.	刘影夏	焊点尺寸对铜锡金属间化合物生成动力学的影响	封装技术	神龙厅	10:55-11:20
Invitation Report	A.M.13th, Oct.	戴一帆	纳米精度光学加工	纳米精度制造	三峡厅	08:00-08:25
Invitation Report	A.M.13th, Oct.	赵德文	芯片制造中晶圆表面纳米精度平坦化原理与技术	纳米精度制造	三峡厅	08:25-08:50
Invitation Report	A.M.13th, Oct.	杜文浩	精密物理实验中高比重钨合金复杂曲面元件精密制造技术研究	纳米精度制造	三峡厅	08:50-09:15
西安励德微系统科技有限公司	A.M.13th, Oct.	孟海莎	MEMS 微器件制备工艺新进展	纳米精度制造	三峡厅	09:15-09:35

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
1527421	A.M.13th, Oct.	赵婷	过硫酸钾对 aisi 52100 轴承钢化学机械抛光性能的影响研究	纳米精度制造	三峡厅	09:35-09:50
1527820	A.M.13th, Oct.	Binghai Lv	Experimental Study on The Force-Induced Rheological Polishing of Complex Shape Cemented Carbide Cutting Tools	纳米精度制造	三峡厅	09:50-10:00
Invitation Report	A.M.13th, Oct.	吕冰海	力流变抛光技术的发展与实践	纳米精度制造	三峡厅	10:10-10:35
Invitation Report	A.M.13th, Oct.	江亮	轴承钢表面超精密化学机械抛光研究	纳米精度制造	三峡厅	10:35-11:00
1528241	A.M.13th, Oct.	Hao Zhang	Ultralow-Voltage Nanoscale Vacuum Channel Diode Working at Atmospheric Environment	纳米精度制造	三峡厅	11:00-11:15
1531351	A.M.13th, Oct.	王佳焕	Tc4 钛合金力流变电化学复合抛光实验研究	纳米精度制造	三峡厅	11:15-11:30
1700003	A.M.13th, Oct.	彭勇	Fabrication of Silicon Microstructures Rapidly and Site-Controlledly with Scratching and Electrochemical Etching	纳米精度制造	三峡厅	11:30-11:45
Invitation Report	A.M.14th, Oct.	孙成亮	基于压电氮化铝（Aln）薄膜材料的射频滤波器研究	射频/微波/太赫兹微纳器件与系统	汉南厅	08:00-08:25
Invitation Report	A.M.14th, Oct.	李君儒	体声波磁电天线的解析模型与关键工艺	射频/微波/太赫兹微纳器件与系统	汉南厅	08:25-08:50
Invitation Report	A.M.14th, Oct.	邵磊	Imaging Dynamics of MEMS Resonators up to 8 Ghz With Ultrafast Pulsed Laser Interferometry	射频/微波/太赫兹微纳器件与系统	汉南厅	08:50-09:15
Invitation Report	A.M.14th, Oct.	黄旼	异构集成射频微系统研究进展和未来展望	射频/微波/太赫兹微纳器件与系统	汉南厅	09:15-09:40
1524019	A.M.14th, Oct.	Yan Wang	Analytical Drain-Current Model for RF Flexible Graphene Filed-Effect Transistors	射频/微波/太赫兹微纳器件与系统	汉南厅	09:40-10:00

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	A.M.14th, Oct.	袁泉	A Novel Rf-MEMS Resonator with Multiple- Frequency Outputs	射频/微波/太赫兹微纳器件与系统	汉南厅	10:10-10:35
Invitation Report	A.M.14th, Oct.	徐跃杭	柔性微波器件技术研究	射频/微波/太赫兹微纳器件与系统	汉南厅	10:35-11:00
纳糯三维科技（上海）有限公司	A.M.14th, Oct.	崔万银	Nanoscribe 双光子微纳 3D 打印技术	射频/微波/太赫兹微纳器件与系统	汉南厅	11:00-11:20
1528314	A.M.14th, Oct.	L. Shao	Imaging of Multi-Ghz Dynamics in MEMS Resonators	射频/微波/太赫兹微纳器件与系统	汉南厅	11:20-11:35
Invitation Report	P.M.13th, Oct.	刘俭	亚表面缺陷三维暗场共焦显微技术研究进展	微纳表征与测量	黄鹤楼厅	14:00-14:20
Invitation Report	P.M.13th, Oct.	刘磊	基于纳米制造的实现超灵敏测量	微纳表征与测量	黄鹤楼厅	14:20-14:40
Invitation Report	P.M.13th, Oct.	陈远流	面向跨尺度、超精密制造的测量关键技术	微纳表征与测量	黄鹤楼厅	14:40-15:00
1468888	P.M.13th, Oct.	Wei Xu	Measurement of Ultra-Low MEMS Packaging Stress by Using In-Situ Stress Magnifying Structure and Micro-Raman Spectroscopy	微纳表征与测量	黄鹤楼厅	15:00-15:10
1469285	P.M.13th, Oct.	涂龙	光通过亚波长金属纳米圆孔超透射现象的仿真和实验研究	微纳表征与测量	黄鹤楼厅	15:10-15:20
1476290	P.M.13th, Oct.	李旷逸	基于多目标差分进化算法的套刻标记形貌与测量配置优化	微纳表征与测量	黄鹤楼厅	15:20-15:30
Invitation Report	P.M.13th, Oct.	吴冠豪	基于光频梳的三维面形测量	微纳表征与测量	黄鹤楼厅	15:40-16:00
Invitation Report	P.M.13th, Oct.	胡春光	反射光谱精密测量技术及其在微纳制造中的应用	微纳表征与测量	黄鹤楼厅	16:00-16:20
Invitation Report	P.M.13th, Oct.	陈修国	高分辨成像穆勒矩阵椭偏仪研制与应用	微纳表征与测量	黄鹤楼厅	16:20-16:40
Invitation Report	P.M.13th, Oct.	X. Li	Grating Interferometry for Precision Positioning	微纳表征与测量	黄鹤楼厅	16:40-17:00
1517914	P.M.13th, Oct.	X.S. Dong	A Measuring Method of Micro Cantilever Stiffness Based on Negative Electrostatic Stiffness	微纳表征与测量	黄鹤楼厅	17:10-17:20
1524685	P.M.13th, Oct.	Kun Wang	Fabrication and Electrochemical Characteristics of Graphene/Cu/Ni Composite Electrode	微纳表征与测量	黄鹤楼厅	17:20-17:30

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
1528075	P.M.13th, Oct.	罗成峰	暗场散射缺陷检测仪研制及其在晶圆表面缺陷检测中的应用	微纳表征与测量	黄鹤楼厅	17:30-17:40
1528222	P.M.13th, Oct.	Shijie Liu	Study on Specific Contact Resistivity of Boron Nitride Nanomaterials	微纳表征与测量	黄鹤楼厅	17:40-17:50
Invitation Report	A.M.13th, Oct.	王晓峰	基于弹性多孔电极的自供电高 g 值力学冲击传感器	微纳传感器/执行器	隆中厅	08:00-08:25
Invitation Report	A.M.13th, Oct.	刘玉菲	应用于早期诊断与精准医疗的集成微系统技术	微纳传感器/执行器	隆中厅	08:25-08:50
1368243	A.M.13th, Oct.	Jiangkai Lian	Analysis of the Vulnerability of MEMS Tuning Fork Gyroscope During the Gun Launch	微纳传感器/执行器	隆中厅	08:50-09:00
1468199	A.M.13th, Oct.	G. Zeng	Detection and Discrimination Of Vocs Using A Single Film Bulk Acoustic Wave Resonator with Temperature Modulation As A Virtual Sensor Array	微纳传感器/执行器	隆中厅	09:00-09:10
1470269	A.M.13th, Oct.	Xiong Zeng	Flexible Electrode by Hydrographic Printing for Surface EMG Monitoring	微纳传感器/执行器	隆中厅	09:10-09:20
1470483	A.M.13th, Oct.	Shuai Liu	Long-Term Stability Enabling Technology of Silicon-Based Piezoresistive MEMS Pressure Sensor	微纳传感器/执行器	隆中厅	09:20-09:30
1472240	A.M.13th, Oct.	王旻	耦合双端固支梁谐振器用于微小质量检测研究	微纳传感器/执行器	隆中厅	09:30-09:40
1475326	A.M.13th, Oct.	Zhang Kai	Design and Fabrication of a MEMS High-G Accelerometer for High Impact	微纳传感器/执行器	隆中厅	09:40-09:50
1475481	A.M.13th, Oct.	Peng Li	High Performance Ammonia Sensor Based on Au-Mose2 Driven by Monolayer Mos2 Nanogenerator	微纳传感器/执行器	隆中厅	09:50-10:00
Invitation Report	A.M.13th, Oct.	周军	Piezoelectret for Wearable Active Sensor	微纳传感器/执行器	隆中厅	10:10-10:35
Invitation Report	A.M.13th, Oct.	刘立武	形状记忆聚合物复合材料力学设计及其空间展开结构	微纳传感器/执行器	隆中厅	10:35-10:50
1476208	A.M.13th, Oct.	Lin-Feng Zhao	Uncertainty Quantification of MEMS Devices with Correlated Random Parameters	微纳传感器/执行器	隆中厅	10:50-11:00

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
1478186	A.M.13th, Oct.	Kangkai. Xu	Visual Detection of Glucose in Microfluidic Chips Based on C/Cdte Quantum Dots Aerogels	微纳传感器/执行器	隆中厅	11:00-11:10
1478290	A.M.13th, Oct.	ZHANG Wenjun	Design and Implementation of MEMS Two-Dimensional Vector Turbulence Sensor	微纳传感器/执行器	隆中厅	11:10-11:20
1479580	A.M.13th, Oct.	Hao Li	Study on The Influence of Temperature on The Reliability and Performance of A MEMS Relay	微纳传感器/执行器	隆中厅	11:20-11:30
1480389	A.M.13th, Oct.	Xiangzheng Qin	Frying Oil Evaluation by a Portable Sensor Based on Dielectric Constant Measurement	微纳传感器/执行器	隆中厅	11:30-11:40
1467986	A.M.13th, Oct.	Mingjie Liu	Research of A Low Cost Fully Printed Accelerometer	微纳传感器/执行器	隆中厅	11:40-11:50
1599046	A.M.14th, Oct.	D.Y. Zhao	A Ppy/Zno Molecularly Imprinted Composite Film-Based Photoelectrochemical Sensor for Acrylamide Detection	微纳传感器/执行器	隆中厅	11:50-12:00
Invitation Report	A.M.14th, Oct.	董瑛	用于体表生理信号监测的微纳传感技术	微纳传感器/执行器	隆中厅	08:00-08:25
Invitation Report	A.M.14th, Oct.	侯成义	面向智能服装的功能仿生纤维状传感器件	微纳传感器/执行器	隆中厅	08:25-08:50
1481356	A.M.14th, Oct.	Mengxia Liu	Simulation Analysis on Nonlinear Vibration of Silicon Resonator Beam Accelerometer Based on Static Load Method	微纳传感器/执行器	隆中厅	08:50-09:00
1481719	A.M.14th, Oct.	Yang H B	Simulation Analysis of Wheeled Horizontal Axis Micromachined Gyroscope with off-Plane Motion Suppression Structure	微纳传感器/执行器	隆中厅	09:00-09:10
1482130	A.M.14th, Oct.	Jia-Zhen Zhang	More Accurate System-Level Model of Thermal Wind Speed and Direction Sensor	微纳传感器/执行器	隆中厅	09:10-09:20
1485501	A.M.14th, Oct.	Wei Feng	Design and Fabrication of a Prototype MEMS Based Electromagnetic Linear Motor	微纳传感器/执行器	隆中厅	09:20-09:30

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
1520862	A.M.14th, Oct.	Teng Shen	Time-Delay Characteristic of a Self-Recoverable Micro-Fluidic Inertial Switch	微纳传感器/执行器	隆中厅	09:30-09:40
1526339	A.M.14th, Oct.	Feng Zhou	Detection of The Nanoparticles Transmembrane Behaviors Using Flexible Biosensor	微纳传感器/执行器	隆中厅	09:40-09:50
1526637	A.M.14th, Oct.	Mengmeng Li	Unidirectional Sensitive Flexible Sensor for Bending Measurements	微纳传感器/执行器	隆中厅	09:50-10:00
Invitation Report	A.M.14th, Oct.	张海峰	微纳协同特殊浸润表面制备及应用研究	微纳传感器/执行器	隆中厅	10:10-10:35
Invitation Report	A.M.14th, Oct.	杨维清	The Construction of Nanomaterial and Nanostructure and Its Applications in Flexible Intelligent Sensors	微纳传感器/执行器	隆中厅	10:35-11:00
1481265	A.M.14th, Oct.	Mingzhu Xie	Low Cost and Distance-Insensitive Paper-Based LC Wireless Humidity Sensor System	微纳传感器/执行器	隆中厅	11:00-11:10
1527310	A.M.14th, Oct.	Zhuoyue Liang	Design and Characterization of a Novel Biaxial Bionic Hair Flow Sensor Based on Resonant Sensing	微纳传感器/执行器	隆中厅	11:10-11:20
1528400	A.M.14th, Oct.	L.D. Du	A Near-Space Directional Anemometer Based on Pressure Difference Amplifying Structure	微纳传感器/执行器	隆中厅	11:20-11:30
1529620	A.M.14th, Oct.	Z. Pu	A Sandwich-Structured Ration Device Based on Polyimide-Transferred Volume Sensor for Flexible Microfluidic System	微纳传感器/执行器	隆中厅	11:30-11:40
1531741	A.M.14th, Oct.	Tengjiang Hu	The Hybrid Fabrication Process of Metal/Silicon Composite Structure for MEMS S&A Device	微纳传感器/执行器	隆中厅	11:40-11:50
20002	A.M.14th, Oct.	史皓天	高精度多功能油液检测传感器的设计	微纳传感器/执行器	隆中厅	11:50-12:00
Invitation Report	A.M.14th, Oct.	刘浩	微纳米级昆虫仿生飞行系统的革新：机遇与挑战	微纳仿生制造	东湖厅	08:00-08:20

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	A.M.14th, Oct.	韩志武	从形似到神似：仿生感知研究	微纳仿生制造	东湖厅	08:20-08:40
Invitation Report	A.M.14th, Oct.	史铁林	基于超亲水界面的仿生制造及其应用	微纳仿生制造	东湖厅	08:40-09:00
Invitation Report	A.M.14th, Oct.	冯西桥	生物材料的强韧化机制研究	微纳仿生制造	东湖厅	09:00-09:20
Invitation Report	A.M.14th, Oct.	刘俊	微纳仿生传感技术	微纳仿生制造	东湖厅	09:20-09:40
Invitation Report	A.M.14th, Oct.	汤勇	仿生跨尺度光功能结构与器件封装	微纳仿生制造	东湖厅	09:40-10:00
Invitation Report	A.M.14th, Oct.	戴振东	壁虎运动仿生中的微纳米制造技术	微纳仿生制造	东湖厅	10:10-10:30
Invitation Report	A.M.14th, Oct.	王钻开	仿生拓扑机械系统	微纳仿生制造	东湖厅	10:30-10:50
Invitation Report	A.M.14th, Oct.	蔡军	基于微生物的微纳米机器人技术	微纳仿生制造	东湖厅	10:50-11:10
1478414	A.M.14th, Oct.	Chen Kehan	A Color and Reflection Spectrum Tunable Flexible Structure	微纳仿生制造	东湖厅	11:10-11:20
1527489	A.M.14th, Oct.	Quan Liu	Regulation of Interfacial Stress for Bioinspired Fibrillar Adhesives	微纳仿生制造	东湖厅	11:20-11:30
1529269	A.M.14th, Oct.	Laiqian DING	A Bionic Microfluidic Chip to Provide a Fluid Microenvironment Comparable to Interstitial Flow for in Vitro Cell Culture And Alignment	微纳仿生制造	东湖厅	11:30-11:40
1508355	A.M.14th, Oct.	杜学敏	仿生智能结构材料设计制备与应用研究	微纳仿生制造	东湖厅	11:40-11:50
Invitation Report	A.M.13th, Oct.	Maeda Ryutaro	Development of Wireless Sensor Nodes for Animals Husbandry and Medical Applications	微纳机电系统	汉南厅	08:00-08:20
Invitation Report	A.M.13th, Oct.	张靖	基于硅芯片上光学微腔的光机械非线性及其在微纳传感的应用	微纳机电系统	汉南厅	08:20-08:40
Invitation Report	A.M.13th, Oct.	王曾晖	别有“动”天--探索纳米世界的机械运动 Detecting Ultrafine Mechanical Motion at The Nanoscale	微纳机电系统	汉南厅	08:40-09:00
Invitation Report	A.M.13th, Oct.	丁铭	高灵敏度原子磁强计技术	微纳机电系统	汉南厅	09:00-09:20

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
1440409	A.M.13th, Oct.	Qifan Guo	Effect of Wafer Level Packaging on RF MEMS Switch Performance	微纳机电系统	汉南厅	09:20-09:30
1452525	A.M.13th, Oct.	Chuanhai Gao	FlexMEMS Enabled Hetero-Integration for Monolithic FBAR-Above-ICO Scillator	微纳机电系统	汉南厅	09:30-09:40
1455839	A.M.13th, Oct.	Y. Ning	Acoustic Picoliter Droplet Ejector Without Nozzle	微纳机电系统	汉南厅	09:40-09:50
1456208	A.M.13th, Oct.	Xi Zhang	Integrated Microfluidic Chip for In-Field Bulk Modulus Analysis	微纳机电系统	汉南厅	09:50-10:00
Invitation Report	A.M.13th, Oct.	常凌乾	Wearable Nanodevices for Single-Cell Sensing and Transfection	微纳机电系统	汉南厅	10:10-10:30
Invitation Report	A.M.13th, Oct.	宦荣华	非线性 MEMS 振荡器的随机动力学	微纳机电系统	汉南厅	10:30-10:50
Invitation Report	A.M.13th, Oct.	肖定邦	嵌套环微机电陀螺研究	微纳机电系统	汉南厅	10:50-11:10
Invitation Report	A.M.13th, Oct.	唐军	固态量子系综磁成像机理及应用研究	微纳机电系统	汉南厅	11:10-11:30
Invitation Report	A.M.13th, Oct.	赵纯	基于硅微谐振器的高分辨率和高稳定性加速度传感器研究进展	微纳机电系统	汉南厅	11:30-11:50
1465322	A.M.13th, Oct.	Hao Li	Design and Fabracation of a Novel MEMS Relay with Low Actuation Voltage and High Performance	微纳机电系统	汉南厅	11:50-12:00
1475182	A.M.13th, Oct.	LI Chenge	Design of Heart Sound ECG In-Situ Synchronous Detector	微纳机电系统	汉南厅	12:00-12:10
1477582	A.M.13th, Oct.	ZHANG Yu	A New Type of Breast Transmissive 3D Ultrasonic Tomography System	微纳机电系统	汉南厅	12:10-12:20
1478246	A.M.13th, Oct.	Xu Jian	3D Porous Graphene Aerogel@Gox Based Microfluidic Biosensor for Electrochemical Glucose Detection	微纳机电系统	汉南厅	12:20-12:30
1700004	A.M.13th, Oct.	周腾	可变形微颗粒介电力相互作用与运动	微纳机电系统	汉南厅	12:30-12:40
Invitation Report	A.M.13th, Oct.	褚金奎	仿生微纳偏振光导航传感器的研究进展	微纳加工制造	东湖厅	08:00-08:25

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	A.M.13th, Oct.	黄永安	超薄柔性电子的激光剥离理论与实验研究	微纳加工制造	东湖厅	08:25-08:50
1445288	A.M.13th, Oct.	刘静	镍基棱镜型高能 x 射线聚焦组合折射透镜的研制	微纳加工制造	东湖厅	08:50-09:05
1451518	A.M.13th, Oct.	郑显泽	基于 Sio2 掩膜层的硅基微半球模具加工工艺研究	微纳加工制造	东湖厅	09:05-09:20
1473203	A.M.13th, Oct.	Yuejiao Wang	Fabrication of Complex 3D Mesostructures in Advanced Materials by 3D Printing Assisted Methods	微纳加工制造	东湖厅	09:20-09:35
1476946	A.M.13th, Oct.	Bingnan Qi	Wireless Detection System of ECG And Heart Rate Signal Based on Flexible Dry Electrode	微纳加工制造	东湖厅	09:35-09:50
1480620	A.M.13th, Oct.	Jiaxin Jiang	High Efficiency Electrospinning Based on Arc Multi-Nozzle Spinneret	微纳加工制造	东湖厅	09:50-10:00
Invitation Report	A.M.13th, Oct.	常博	复合微组装技术的研究	微纳加工制造	东湖厅	10:10-10:35
Invitation Report	A.M.13th, Oct.	周圣军	Enhancement in Light Extraction Efficiency of Gan-Based Light-Emitting Diodes by Integrating Micro/Nano-Structures	微纳加工制造	东湖厅	10:35-11:10
1480777	A.M.13th, Oct.	Yaming Hu	Manufacturing Metallic Pyramid Tips by Using Silicon Template and Micro Electroforming Techniques	微纳加工制造	东湖厅	11:10-11:20
1524498	A.M.13th, Oct.	赖丽燕	基于 su-8 胶与阳极氧化法处理的钛片基底结合特性的研究	微纳加工制造	东湖厅	11:20-11:30
1524909	A.M.13th, Oct.	Zi-Chen Geng	A 2D Waveguide Method for Inclined Lithography Simulation of Thick SU-8 Photoresist	微纳加工制造	东湖厅	11:30-11:40
1529430	A.M.13th, Oct.	Lei Wu	UV-Assisted Rapid Selective Etching on Gaas Surface	微纳加工制造	东湖厅	11:40-11:50
1454695	A.M.13th, Oct.	苏振	微流控 pdms 芯片设计加工及液滴相关技术的研究	微纳加工制造	东湖厅	11:50-12:00
1598745	A.M.13th, Oct.	苗斌	跨尺度硅湿法深硅刻蚀技术	微纳加工制造	东湖厅	12:00-12:10

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	A.M.13th, Oct.	蒋兴宇	Microfluidics for Tool-Building in Chemistry and Biology	微纳流控芯片系统与应用	神龙厅	08:00-08:20
Invitation Report	A.M.13th, Oct.	刘笔锋	微流控芯片单细胞分析	微纳流控芯片系统与应用	神龙厅	08:20-08:40
Invitation Report	A.M.13th, Oct.	黄卫华	基于三维微流控芯片的循环肿瘤细胞体外及体内检测	微纳流控芯片系统与应用	神龙厅	08:40-09:00
Invitation Report	A.M.13th, Oct.	林金明	微流控芯片上细胞 3D 培养与化学刺激	微纳流控芯片系统与应用	神龙厅	09:00-09:20
Invitation Report	A.M.13th, Oct.	夏兴华	纳通道物质输运特性及其应用	微纳流控芯片系统与应用	神龙厅	09:20-09:40
1384723	A.M.13th, Oct.	Yujun Chen	Microfluidic Flow-Through SPME Chip for Online Separation and MS Detection of Multiple Analyses in Complex Matrix	微纳流控芯片系统与应用	神龙厅	09:40-09:50
1476553	A.M.13th, Oct.	Xiang Zhang	Design and Fabrication of a Vascular on A Chip	微纳流控芯片系统与应用	神龙厅	09:50-10:00
Invitation Report	A.M.13th, Oct.	杨朝勇	液体活检新器件新方法	微纳流控芯片系统与应用	神龙厅	10:10-10:30
Invitation Report	A.M.13th, Oct.	魏泽文	用于肿瘤单细胞测序的微流控芯片	微纳流控芯片系统与应用	神龙厅	10:30-10:50
Invitation Report	A.M.13th, Oct.	陈伟强	Patient-Specific ‘Glioblastoma-On-A-Chip’ for Personalized Anti-PD-1 Immunotherapy	微纳流控芯片系统与应用	神龙厅	10:50-11:10
Invitation Report	A.M.13th, Oct.	方群	超微量高通量微流控分析筛选系统的研究	微纳流控芯片系统与应用	神龙厅	11:10-11:30
1478303	A.M.13th, Oct.	Feng Tian	The Silicon Nanospikes Integrated on Sidewalls of Micropillars in a Microfluidic Channel for Mechanical Cell Lysis	微纳流控芯片系统与应用	神龙厅	11:30-11:40
1480809	A.M.13th, Oct.	Miao Yu	A Novel Si Interposer with Self-Adaptive Microjet Microfluid for High Power Integration	微纳流控芯片系统与应用	神龙厅	11:40-11:50
1481117	A.M.13th, Oct.	Yuliang Wang	Programmable Plasmonic Switching of Microbubbling by Moving Contact Lines	微纳流控芯片系统与应用	神龙厅	11:50-12:00
1524891	A.M.13th, Oct.	连娇愿	基于台阶乳化的微液滴直径调控研究	微纳流控芯片系统与应用	神龙厅	12:00-12:10

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
1529566	A.M.13th, Oct.	X. Lai	Reconfigurable Microfluidics in a Rubik'S Cube	微纳流控芯片系统与应用	神龙厅	12:10-12:20
1608304	A.M.13th, Oct.	龚涛	基于微流控芯片和敞开式离子源集成系统快速分析研究	微纳流控芯片系统与应用	神龙厅	12:20-12:30
Invitation Report	A.M.13th, Oct.	沈国震	基于低维半导体纳米结构的柔性智能传感器研究	微纳米材料	黄鹤楼厅	08:00-08:20
Invitation Report	A.M.13th, Oct.	Hani E. Elsayed-Ali	Lattice Dynamics of Laser Heated Thin Films and Surfaces Studied by Ultrafast Electron Diffraction	微纳米材料	黄鹤楼厅	08:20-08:40
Invitation Report	A.M.13th, Oct.	王永磊	可调控的新型人工自旋冰	微纳米材料	黄鹤楼厅	08:40-09:00
Invitation Report	A.M.13th, Oct.	陈娜	Designing Amorphous Ferromagnets with Tunable Properties	微纳米材料	黄鹤楼厅	09:00-09:20
1427847	A.M.13th, Oct.	黄浩	水热制备小尺寸多孔羟基磷灰石载药微球的研究	微纳米材料	黄鹤楼厅	09:20-09:30
1468328	A.M.13th, Oct.	Zitao Liu	Pre-Treatment Method Based on Nano-Adsorbent Combination for Human Exhaled Breath Detection by Electronic Noses	微纳米材料	黄鹤楼厅	09:30-09:40
1476164	A.M.13th, Oct.	Jun Chen	Core-Shell Copper Nanowire-Tio2 Nanotube Arrays with Excellent Bipolar Resistive Switching Properties	微纳米材料	黄鹤楼厅	09:40-09:50
1481449	A.M.13th, Oct.	Y.H.Wang	Fabrication of Flexible Electro-Thermal Film Based on Graphene-Thermoplastic Polyurethane	微纳米材料	黄鹤楼厅	09:50-10:00
Invitation Report	A.M.13th, Oct.	韩俊波	磁光测量技术及其在微纳材料及器件研究中的应用	微纳米材料	黄鹤楼厅	10:10-10:30
Invitation Report	A.M.13th, Oct.	台国安	二维原子晶体材料：制备、性能和器件应用	微纳米材料	黄鹤楼厅	10:30-10:50
Invitation Report	A.M.13th, Oct.	宋玉军	Microfluidic Platform for The Nanomedicines Synthesis and Their Application for Tumor Diagnosis and Therapy	微纳米材料	黄鹤楼厅	10:50-11:00

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
1524516	A.M.13th, Oct.	Fandong Meng	Wet Adhesion Inspired by Tree Frog for Wide Temperature Range	微纳米材料	黄鹤楼厅	11:00-11:10
1527541	A.M.13th, Oct.	Lei Li1,2*	Carboxylated Chitosan: Graphene Oxide Nanocomposite with Wrinkled Surface for Multi-Bit Biomemory	微纳米材料	黄鹤楼厅	11:10-11:20
1527573	A.M.13th, Oct.	Weiwei Zhang	Cavity Enhanced Transverse Magneto-Optical Kerr Effect of Al\AAO Based Nanostructure Arrays	微纳米材料	黄鹤楼厅	11:20-11:30
1527650	A.M.13th, Oct.	Wenli Zhou	Effect of Cu Atom Absorbance on The Electronic Properties of Graphene Nanoribbon and Carbon Nanotube Covalent Hybrid Structure	微纳米材料	黄鹤楼厅	11:30-11:40
1528526	A.M.13th, Oct.	Xu-yao Tang	Effects of Different Aspect Ratio of Vertically-Aligned Carbon Nanotube Arrays on Field Emission Properties	微纳米材料	黄鹤楼厅	11:40-11:50
1529467	A.M.13th, Oct.	Xing Wang	A Novel Cu-Cu2O Mesh for Photoelectrochemical Water Spliting	微纳米材料	黄鹤楼厅	11:50-12:00
1530785	A.M.13th, Oct.	Yi Li	Research on Resistive Switching Characteristics of Pt/Ag/Zno/Zno: Li/Pt Resisitive Switching Memory	微纳米材料	黄鹤楼厅	12:00-12:10
1530800	A.M.13th, Oct.	Ping Song	Effect of Resistance Switching Layer Thickness on Characteristics of Li-Doped Zno Resistance Switching Memory Devices	微纳米材料	黄鹤楼厅	12:10-12:20
1473610	A.M.13th, Oct.	Lin Zhang	Porous Tio2 With Controllable Oxygen Vacancy at Atomic Scale for Photocatalytic Water Splitting	微纳米材料	黄鹤楼厅	12:20-12:30
Invitation Report	A.M.13th, Oct.	黎华	半导体太赫兹光频梳	微纳米光子学	神龙厅	14:00-14:20
Invitation Report	A.M.13th, Oct.	余华	基于光子晶体的电光调制系统芯片	微纳米光子学	神龙厅	14:20-14:40
Invitation Report	A.M.13th, Oct.	孙晓娟	基于等离激元增强的 Algan 基紫外探测器研究	微纳米光子学	神龙厅	14:40-15:00
Invitation Report	A.M.13th, Oct.	白本锋	纳米结构表面光学矢量场的超分辨测量表征	微纳米光子学	神龙厅	15:00-15:20

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	A.M.13th, Oct.	周维虎	集成电路制造装备技术中跨尺度微纳光学计量与检测技术	微纳米光子学	神龙厅	15:30-15:50
Invitation Report	A.M.13th, Oct.	何琼	超构表面中的角度色散：物理与应用	微纳米光子学	神龙厅	15:50-16:10
Invitation Report	A.M.13th, Oct.	易飞	面向红外气体传感的超结构滤光探测阵列芯片	微纳米光子学	神龙厅	16:10-16:30
Invitation Report	A.M.13th, Oct.	王学文	Femtosecond Laser: A Versatile Tool for Nanoprinting	微纳米光子学	神龙厅	16:30-16:50
Invitation Report	A.M.13th, Oct.	王越	法诺共振回音壁模式光学微腔生物传感技术研究	微纳米光子学	神龙厅	16:50-17:10
1446849	A.M.13th, Oct.	Xue Han	Connected Nanoholes Based Plasmonic Tweezers	微纳米光子学	神龙厅	17:10-17:20
1523413	A.M.13th, Oct.	Jin Wang	Enhanced Photoelectric Performance for Silicon Nanowire–Organic Hybrid Solar Cells Through the Incorporation of Gold Nanoparticles	微纳米光子学	神龙厅	17:20-17:30
1474813	A.M.13th, Oct.	Yan Xin	FDTD Simulation on Transmittance of Silica Microsphere Thin Films with Varying Embedding in an Optical Adhesive	微纳米光子学	神龙厅	17:30-17:40
1529179	A.M.13th, Oct.	X. Meng	Dual Dark Polaritons in a Triple Quantum Well Microcavity	微纳米光子学	神龙厅	17:40-17:50
Invitation Report	A.M.14th, Oct.	张大成	以 IC 芯片制造模式制造 MEMS 芯片	微纳米技术应用	黄鹤楼厅	08:00-08:25
Invitation Report	A.M.14th, Oct.	刘逵	华润上华的 MEMS 代工业务	微纳米技术应用	黄鹤楼厅	08:25-08:50
Invitation Report	A.M.14th, Oct.	周再发	适用于 MEMS 批量制造的工艺参数提取方法	微纳米技术应用	黄鹤楼厅	08:50-09:15
Invitation Report	A.M.14th, Oct.	李铁	微纳融合的气体传感器	微纳米技术应用	黄鹤楼厅	09:15-09:40
1529231	A.M.14th, Oct.	Huafeng Liu	A Passive Method for Reducing Temperature Sensitivity of a Sub-Nano-G MEMS Seismic Accelerometer for Marsquake Monitoring	微纳米技术应用	黄鹤楼厅	09:40-09:50

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
1474862	A.M.14th, Oct.	Hao Li	Research on The Mechanical Impact Characteristics and Reliability of A MEMS Relay	微纳米技术应用	黄鹤楼厅	09:50-10:00
Invitation Report	A.M.14th, Oct.	李刚	中国 MEMS 产业国产化与敏芯之路	微纳米技术应用	黄鹤楼厅	10:10-10:30
Invitation Report	A.M.14th, Oct.	王懿	固态传感器产业现状及思考	微纳米技术应用	黄鹤楼厅	10:30-10:50
1480686	A.M.14th, Oct.	Fu Yuedong	Development of Aln Based Piezoelectric Ultrasonic Transducer Array	微纳米技术应用	黄鹤楼厅	10:50-11:05
1480879	A.M.14th, Oct.	Dong Li	High-Precision Frequency Measurement for MEMS Resonant Sensors Based on Multi-Channel Phase Shift Clock Method	微纳米技术应用	黄鹤楼厅	11:05-11:20
1495794	A.M.14th, Oct.	ShiHao Tang	A MEMS Gravimeter Qualified for Earth Tides Measurement	微纳米技术应用	黄鹤楼厅	11:20-11:35
1526421	A.M.14th, Oct.	Yong Ruan	Microfabrication and Measurement of Rb-Ne Vapor Cell for Chip-Scale Atomic Clocks	微纳米技术应用	黄鹤楼厅	11:35-11:50
1527382	A.M.14th, Oct.	Y. Deng	Microtextures Inversely Designed for Cassie-Baxter Wettability	微纳米技术应用	黄鹤楼厅	11:50-12:00
Invitation Report	P.M.13th, Oct.	陈云飞	纳米孔超灵敏传感器的设计理论与制造	微纳米力学与表征技术	隆中厅	14:00-14:20
Invitation Report	P.M.13th, Oct.	王宏涛	In-Situ Electron Tomography	微纳米力学与表征技术	隆中厅	14:20-14:40
Invitation Report	P.M.13th, Oct.	杜亦佳	压电 MEMS 器件设计理论与实验研究	微纳米力学与表征技术	隆中厅	14:40-15:00
Invitation Report	P.M.13th, Oct.	吕晓洲	Progress on Advanced Sensors Devices and Sensing Materials: Conceptualization, Methodology and Applications	微纳米力学与表征技术	隆中厅	15:00-15:20
1482657	P.M.13th, Oct.	Min Liu	Design and Analysis of a Bistable MEMS Inertial Switch with Self-Locking and Reverse-Unlocking Functions	微纳米力学与表征技术	隆中厅	15:20-15:30
Invitation Report	P.M.13th, Oct.	张助华	基于线缺陷的功能材料设计	微纳米力学与表征技术	隆中厅	15:40-16:00

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	P.M.13th, Oct.	陈小明	Nanomechanical Characterization of The Mechanical Strength of Carbon Nanotube - Polymer Interfaces	微纳米力学与表征技术	隆中厅	16:00-16:20
Invitation Report	P.M.13th, Oct.	彭倚天	基于导电 afm 石墨烯原子尺度载流摩擦特性和调控研究	微纳米力学与表征技术	隆中厅	16:20-16:40
Invitation Report	P.M.13th, Oct.	王玉亮	激光等离激元初始汽泡成核及调控机理研究	微纳米力学与表征技术	隆中厅	16:40-17:00
Invitation Report	P.M.13th, Oct.	王雄	高超声速风洞 MEMS 摩阻测试技术	微纳米力学与表征技术	隆中厅	17:00-17:20
布鲁克（北京）科技有限公司	P.M.13th, Oct.	魏伯任	Characterizations of Nano-Mechanical Properties Applied in Display Industries	微纳米力学与表征技术	隆中厅	17:20-17:30
1482704	P.M.13th, Oct.	Libo Gao	Biomimetic and Radially Symmetric Graphene Aerogel for Flexible Electronics	微纳米力学与表征技术	隆中厅	17:30-17:40
1482871	P.M.13th, Oct.	Xiao Wang	Measurement of Pure Tantalum’s Elastic Modulus and Hardness by Nanoindentation Method	微纳米力学与表征技术	隆中厅	17:40-17:50
1497991	P.M.13th, Oct.	Chaoqun Dang	Direct Quantification of Mechanical Responses of Tisin/Ag Multilayer Coatings	微纳米力学与表征技术	隆中厅	17:50-18:00
1522367	P.M.13th, Oct.	Kai-Ming Hu	A Novel Fabrication Method of Hierarchical Graphene Wrinkles in PMMA-PDMS Bilayer System	微纳米力学与表征技术	隆中厅	18:00-18:10
Invitation Report	P.M.13th, Oct.	张学记	Nanotheranostic Opportunities and Challenges	微纳米马达与微纳米智能机器人	三峡厅	14:00-14:20
Invitation Report	P.M.13th, Oct.	王树涛	仿生粘附界面材料	微纳米马达与微纳米智能机器人	三峡厅	14:20-14:40
Invitation Report	P.M.13th, Oct.	贺强	胶体马达群体运动的物理化学机制	微纳米马达与微纳米智能机器人	三峡厅	14:40-15:00
Invitation Report	P.M.13th, Oct.	Y.Long	Progress in Thermochromic Materials	微纳米马达与微纳米智能机器人	三峡厅	15:00-15:20
Invitation Report	P.M.13th, Oct.	张立	Magnetic Swimming Microrobots for Biomedicine	微纳米马达与微纳米智能机器人	三峡厅	15:30-15:50

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	P.M.13th, Oct.	唐晋尧	多维度光操作纳米机器人的设计，制备和挑战	微纳米马达与微纳米智能机器人	三峡厅	15:50-16:10
Invitation Report	P.M.13th, Oct.	李隆球	Phototaxis Motion Behavior of Self-Propelled Water Droplet Microrobot in Oil Solvent	微纳米马达与微纳米智能机器人	三峡厅	16:10-16:30
Invitation Report	P.M.13th, Oct.	Alexander A. Solovev	Dynamic Nanomachines for Clean Air, Water and Energy	微纳米马达与微纳米智能机器人	三峡厅	16:30-16:50
Invitation Report	P.M.13th, Oct.	马星	Fabrication and Biomedical Applications of Micro/Nano-Motors	微纳米马达与微纳米智能机器人	三峡厅	16:50-17:00
Invitation Report	P.M.13th, Oct.	刘平伟	Colloidal Electronic Cells Based on 2D Materials	微纳米马达与微纳米智能机器人	三峡厅	17:00-17:20
Invitation Report	P.M.13th, Oct.	毛春	微纳米马达在血液疾病治疗中的应用研究	微纳米马达与微纳米智能机器人	三峡厅	17:20-17:40
Invitation Report	P.M.13th, Oct.	牟方志	Collective Behaviors of Micromotors	微纳米马达与微纳米智能机器人	三峡厅	17:40-18:00
Invitation Report	P.M.13th, Oct.	张其清	胶原基生物材料及其制品的研究与产业化	微纳米生物医药	汉南厅	14:00-14:20
Invitation Report	P.M.13th, Oct.	朱小立	智能响应性 dna 纳米器件及其在生物医药中的应用	微纳米生物医药	汉南厅	14:20-14:30
Invitation Report	P.M.13th, Oct.	张国军	基于 cmut 的乳腺癌检测超声 ct 系统	微纳米生物医药	汉南厅	14:30-14:40
Invitation Report	P.M.13th, Oct.	冯年平	Preparation of Self-Assembled Micelles by Supercritical Fluid Technology for Improving Germacrone Oral Bioavailability	微纳米生物医药	汉南厅	14:40-14:50
Invitation Report	P.M.13th, Oct.	谢曦	微纳生物医学器件	微纳米生物医药	汉南厅	14:50-15:00
Invitation Report	P.M.13th, Oct.	徐宏	基于微纳材料的超灵敏、多指标生物检测技术构建及应用	微纳米生物医药	汉南厅	15:00-15:10
Invitation Report	P.M.13th, Oct.	陈红丽	Janus 磁性纳米粒的制备及其在肿瘤治疗中的应用	微纳米生物医药	汉南厅	15:10-15:20
Invitation Report	P.M.13th, Oct.	李温斌	载血管内皮生长因子组织工程小口径血管缓释模型的构建	微纳米生物医药	汉南厅	15:20-15:30

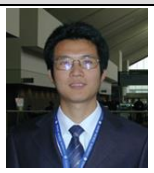
Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	P.M.13th, Oct.	王春仁	纳米生物材料的安全性评价	微纳米生物医药	汉南厅	15:40-16:00
Invitation Report	P.M.13th, Oct.	张晗	基于二维烯的微纳米生物医学光子学研究	微纳米生物医药	汉南厅	16:00-16:10
Invitation Report	P.M.13th, Oct.	储茂泉	Graphitic Carbon Nanocages for Sustained Drug Release and Cancer Therapy	微纳米生物医药	汉南厅	16:10-16:20
Invitation Report	P.M.13th, Oct.	张智勇	骨组织工程（Bte）技术 2.0 研究时期的思考与探索 --从“概念验证”（Poc）到“价值验证”（Pov）	微纳米生物医药	汉南厅	16:20-16:30
Invitation Report	P.M.13th, Oct.	古宏晨	纳米颗粒材料的可控设计与疾病诊治的应用	微纳米生物医药	汉南厅	16:30-16:40
Invitation Report	P.M.13th, Oct.	刘爱林	基于纳米生物传感技术的急性早幼粒细胞白血病标志基因检测研究	微纳米生物医药	汉南厅	16:40-16:50
Invitation Report	P.M.13th, Oct.	王银松	纳米载体技术用于肿瘤光学精准治疗	微纳米生物医药	汉南厅	16:50-17:00
1427771	P.M.13th, Oct.	黄浩	水热制备镁掺杂多孔羟基磷灰石载药微球的研究	微纳米生物医药	汉南厅	17:00-17:10
1471701	P.M.13th, Oct.	Mimi Wan	Novel Strategies for Rapid Elimination of Toxic Blood Heavy Metal Ions	微纳米生物医药	汉南厅	17:10-17:20
1478179	P.M.13th, Oct.	王志浩	负载 BMP2/TGFB1/VEGF 的壳聚糖纳米缓释系统诱导成骨效果及机制的研究	微纳米生物医药	汉南厅	17:20-17:30
1528709	P.M.13th, Oct.	hurui Shi	Homologous-Targeting Biomimetic Nanoparticles for Photothermal Therapy and Nrf2-Sirna Amplified Photodynamic Therapy Against Oral Tongue Squamous Cell Carcinoma	微纳米生物医药	汉南厅	17:30-17:40
1700001	P.M.13th, Oct.	江一波	Superoxide Transient Stimulation Improves the Efficiency of Neural Stem Cells Differentiating into Neural Cells	微纳米生物医药	汉南厅	17:40-17:50
1636806	P.M.13th, Oct.	黄香宜	Catalytic Polymer-Metalloporphyrin Dot for In Vivo Imaging and Chemiluminescence Dynamic Therapy	微纳米生物医药	汉南厅	17:50-18:00

Paper ID	Date	Author	Paper Title	Session Title	Session Location	Presentation Time
Invitation Report	P.M.13th, Oct.	Gavin Conibeer	How Can We Engineer Materials for Hot Carrier Solar Cell	微纳能源技术	东湖厅	14:00-14:20
Invitation Report	P.M.13th, Oct.	宋伟杰	柔性微纳仿生结构的制备及其在太阳电池中的应用	微纳能源技术	东湖厅	14:20-14:40
Invitation Report	P.M.13th, Oct.	韩伟强	从 Fesn5 到 Nisn5 新相：亚稳态形成机理及用于锂离子电池负极	微纳能源技术	东湖厅	14:40-15:00
1469768	P.M.13th, Oct.	Li hao	Design and Experimental Study on A Multi-Source Energy Harvester Based On Solar And Radioisotope Sources	微纳能源技术	东湖厅	15:00-15:10
1477059	P.M.13th, Oct.	Yiwei Wang	Flexible and Stretchable Energy Harvester Based on Low Energy Dissipation Pre-Encapsulation Method	微纳能源技术	东湖厅	15:10-15:20
1520404	P.M.13th, Oct.	王海	风力发电机叶片振动控制策略的研究	微纳能源技术	东湖厅	15:20-15:30
Invitation Report	P.M.13th, Oct.	张跃	一维氧化锌的界面调控与应用	微纳能源技术	东湖厅	15:40-16:00
Invitation Report	P.M.13th, Oct.	王道爱	固液界面摩擦起电设计及能源收集利用	微纳能源技术	东湖厅	16:00-16:20
Invitation Report	P.M.13th, Oct.	陈蓉	量子点柔性显示的 ald 稳定化技术研究	微纳能源技术	东湖厅	16:20-16:40
1521882	P.M.13th, Oct.	De Li	Microelectrodes Fabricated by Spray Drying Method: A Case of Lifepo4	微纳能源技术	东湖厅	16:40-16:50
1527609	P.M.13th, Oct.	X. P. Fu	Embedded Triboelectric Active Sensors for Real-Time Pneumatic Monitoring	微纳能源技术	东湖厅	16:50-17:00
1529875	P.M.13th, Oct.	Baodong Hou	Fabrication Technology and Characteristics Research of Zno Nanorods Based Acceleration Sensor	微纳能源技术	东湖厅	17:00-17:10
1529972	P.M.13th, Oct.	王凯	微机械磁性反转电磁双稳态振动能量采集器	微纳能源技术	东湖厅	17:10-17:20

分会场发言一览表

Oral Seassion

➢ 微纳传感器/执行器分会场	
分会场简介：议题包括但不局限于压力传感器、振动传感器、湿敏传感器、磁敏传感器、气敏传感器、新型 MEMS 执行器、纳米传感器材料等。 **主　席：**张宇峰教授（哈尔滨工业大学）、赵晓锋教授（黑龙江大学） **时　间：**2019 年 10 月 13 日上午　　**地　点：**隆中厅	
主持人：张宇峰教授（哈尔滨工业大学）	
08:00-08:25	 特邀报告：基于弹性多孔电极的自供电高 g 值力学冲击传感器 报告人：王晓峰 研究员 单位：清华大学
08:25-08:50	 特邀报告：应用于早期诊断与精准医疗的集成微系统技术 报告人：刘玉菲 教授 单位：重庆大学
08:50-09:00	1368243：Analysis of The Vulnerability of MEMS Tuning Fork Gyroscope During The Gun Launch Author(s)：Jiangkai Lian, Yiyuan Li, Jianhua Li, Lixin Xu Organization(s): School of Mechatronical Engineering, Beijing Institute of Technology, Beijing
09:00-09:10	1468199：Detection and Discrimination of Vocs Using A Single Film Bulk Acoustic Wave Resonator with Temperature Modulation as A Virtual Sensor Array Author(s)：Zeng， Cao， Yuan，Zhang， Yang，Duan，Pang1 Organization(s): School of Mechatronical Engineering, Beijing Institute of Technology, Beijing
09:10-09:20	1470269：Flexible Electrode by Hydrographic Printing for Surface EMG Monitoring Author(s)：Xiong Zeng ，Ying Dong1 Organization(s): Graduate School at Shenzhen, Tsinghua University, Shenzhen, Guangdong, China
09:20-09:30	1470483：Long-Term Stability Enabling Technology of Silicon-Based Piezoresistive MEMS Pressure Sensor Author(s)：Shuai Liu, Xiaohui Du，Minjie Zhu，Dan Liu Organization(s): Instrumentation Technology and Economy Institute, Beijing, 100055, CHINA
09:30-09:40	1472240：耦合双端固支梁谐振器用于微小质量检测研究 Author(s)：王旻，毛诗涵，于虹 1 Organization(s): MEMS 教育部重点实验室，东南大学，南京，江苏省，中国

09:40-09:50	1475326：Design and Fabrication of A MEMS High-G Accelerometer For High Impact Author(s)：Zhang Kai, Zhao Yulong, Li Cun and Xu Hanyang Organization(s): State Key Laboratory for Mechanical Manufacturing System, Xi'an Jiaotong University, Xi'an, 710049, China
09:50-10:00	1475481：High Performance Ammonia Sensor Based nn Au-Mose2 Driven by Monolayer Mos2 Nanogenerator Author(s)：Peng Li Organization(s): Tsinghua University, Beijing, China
10:00-10:10	**茶歇**
主持人：张宇峰教授（哈尔滨工业大学）	
10:10-10:35	 特邀报告：Piezoelectret For Wearable Active Sensor 报告人：周军 教授 单位：华中科技大学
10:35-10:50	 特邀报告：形状记忆聚合物复合材料力学设计及其空间展开结构 报告人：刘立武 教授 单位：哈尔滨工业大学
10:50-11:00	1476208：Uncertainty Quantification of MEMS Devices with Correlated Random Parameters Author(s)：Lin-Feng Zhao, Zai-Fa Zhou, Yi-Qun Song, Mu-Zi Meng and Qing-an Huang Organization(s): Key Laboratory of MEMS of the Ministry of Education, Southeast University, Nanjing, Jiangsu, China
11:00-11:10	1478186：Visual Detection of Glucose in Microfluidic Chips Based on C/Cdte Quantum Dots Aerogels Author(s)：Kangkai.Xu，Tao. Hu，Zhonghua. Ni Organization(s): Jiangsu Key Laboratory for Design and Manufacture of Micro-nano Biomedical Devices, Southeast University, Nanjing, Jiangsu, China
11:10-11:20	1478290：Design and Implementation of MEMS Two-Dimensional Vector Turbulence Sensor Author(s)：ZHANG Wenjun, WANG Renxin, SHEN Wei, LIU Guochang, XUE Chenyang, Organization(s): Science and Technology on Electronic Test & Measurement Laboratory, North University of China, Taiyuan 030051, China
11:20-11:30	1479580：Study on The Influence of Temperature on The Reliability and Performance Of A MEMS Relay Author(s)：Hao Li, Yong Ruan Organization(s): Science and Technology on Electronic Test & Measurement Laboratory, North University of China, Taiyuan 030051, China
11:30-11:40	1480389：Frying Oil Evaluation by A Portable Sensor Based On Dielectric Constant Measurement Author(s)：Xiangzheng Qin, Zhanghao Chen, Lei Tang, Brandon Borom, Ning Cao, DanieOrganization(s): Shanghai Key Laboratory of Intelligent Manufacturing and Robotics, School of Mechatronic Engineering and Automation, Shanghai University, Shanghai 200444

11:40-11:50	1467986：Research of A Low Cost Fully Printed Accelerometer Author(s)：Mingjie Liu, Yulong Zhao, Qi Zhang and Yiwei Shao Organization(s): State Key Laboratory for Manufacturing Systems Engineering, Xi'an Jiaotong University, Xi'an, Shaanxi, China
11:50-12:00	1599046：A Ppy/Zno Molecularly Imprinted Composite Film-Based Photoelectrochemical Sensor for Acrylamide Detection Author(s)：D.Y. Zhao，N.Q. Jia1 Organization(s): College of Chemistry and Materials Science, Shanghai Normal University, Shanghai, China

➢ 微纳米材料分会场

分会场简介：微纳米材料的先进制备和合成技术、材料的结构和性能关系研究的基础物理化学理论、微纳米材料的特色应用（如生物医药、能源催化、控制释放、信息传感）。

主　席：宋玉军教授（北京科技大学）

时　间：2019 年 10 月 13 日上午　　**地　点：**黄鹤楼厅

主持人：宋玉军教授 (北京科技大学)

08:00-08:20	 特邀报告：基于低维半导体纳米结构的柔性智能传感器研究 报告人：沈国震 研究员 单位：中国科学院半导体研究所
08:20-08:40	 特邀报告：Lattice Dynamics of Laser Heated thin Films and Surfaces Studied by Ultrafast Electron Diffraction 报告人：Hani E. Elsayed-Ali 单位：Old Dominion University
08:40-09:00	 特邀报告：可调控的新型人工自旋冰 报告人：王永磊 教授 单位：南京大学
09:00-09:20	 特邀报告：Designing Amorphous Ferromagnets with Tunable Properties 报告人：陈娜 副研究员 单位：清华大学
09:20-09:30	1427847：水热制备小尺寸多孔羟基磷灰石载药微球的研究 Author(s)：黄浩，陈景帝，李倩，邹琳, Organization(s): 福州大学 生物和医药技术研究院，福建 福州 350003
09:30-09:40	1468328：Pre-Treatment Method Based on Nano-Adsorbent Combination for Human Exhaled Breath Detection By Electronic Noses Author(s)：Zitao Liu Organization(s): Graduate School at Shenzhen, Tsinghua University, Shenzhen, Guangdong, China
09:40-09:50	1476164：Core-Shell Copper Nanowire-Tio2 Nanotube Arrays with Excellent Bipolar Resistive Switching Properties Author(s)：Jun Chen and Ruiting Zheng Organization(s): Key Laboratory of Radiation Beam Technology and Materials Modification of the Ministry of Education, College of Nuclear Science and Technology, Beijing Normal University, Beijing 100875, P.R. China
09:50-10:00	1481449：Fabrication of Flexible Electro-Thermal Film Based on Graphene-Thermoplastic Polyurethane Author(s)：Y.H.Wang,

	Organization(s): Department of Materials and Food, University of Electronic Science and Technology of China
10:00-10:10	**茶歇**
主持人：陈娜副研究员 (清华大学)	
10:10-10:30	 特邀报告：微纳光波导器件产业化技术 报告人：韩俊波 研究员 单位：国家脉冲强磁场科学中心
10:30-10:50	 特邀报告：二维原子晶体材料：制备、性能和器件应用 报告人：台国安 教授 单位：南京航空航天大学
10:50-11:00	 特邀报告：Microfluidic Platform for The Nanomedicines Synthesis And Their Application For Tumor Diagnosis And Therapy 报告人：宋玉军 教授 单位：北京科技大学
11:00-11:10	1524516：Wet Adhesion Inspired by Tree Frog for Wide Temperature Range Author(s)：Fandong Meng ， Quan Liu ， Wenhui Chen, Qian Li Organization(s): School of Power and Mechanical Engineering, The Institute of Technological Science, Wuhan University, Wuhan, China
11:10-11:20	1527541：Carboxylated Chitosan: Graphene Oxide Nanocomposite with Wrinkled Surface For Multi-Bit Biomemory Author(s)：Lei Li Organization(s): HLJ Province Key Laboratories of senior-education for Electronic Engineering, Heilongjiang University,
11:20-11:30	1527573：Cavity Enhanced Transverse Magneto-Optical Kerr Effect of Al\AAO Based Nanostructure Arrays Author(s)：Weiwei Zhang, Pavel O. Kapralov, Xinhua Chen1, Vladimir I. Belotelov , Yujun Song Organization(s): Center for Modern Physics Technology, Applied Physics Department, School of Mathematics and Physics, University of Science and Technology, Beijing 100083, China
11:30-11:40	1527650：Effect of Cu Atom Absorbance on The Electronic Properties of Graphene Nanoribbon And Carbon Nanotube Covalent Hybrid Structure Author(s)：Wenli Zhou, Shuang Wu, Yu Zhu, Yan Yu, Junxiong Gao, Yunbo Wang Organization(s): School of Optical and Electronic Informations, Huazhong University of Science and Technology, Wuhan, Hubei, China
11:40-11:50	1528526：Effects of Different Aspect Ratio of Vertically-Aligned Carbon Nanotube Arrays on Field Emission Properties Author(s)：Xu-yao Tang, Hong-xin Yue, Lin Liu, Jie Luo, Xiao-lu Yan, Xiao-ling Wu, Rui-ting Zheng, Guo-an Cheng Organization(s): Laboratory of Nanomaterial and technology, College of Nuclear Science and Technology, Beijing Normal University, Beijing 100875, China

11:50-12:00	1529467：A Novel Cu-Cu2O Mesh for Photoelectrochemical Water Spliting Author(s)：Xing Wang and Ruiting Zheng Organization(s): Key Laboratory of Radiation Beam Technology and Materials Modification of the Ministry of Education, College of Nuclear Science and Technology, Beijing Normal University, Beijing 100875, P.R. China
12:00-12:10	1530785：Research On Resistive Switching Characteristics of Pt/Ag/Zno/Zno:Li/Pt Resisitive Switching Memory Author(s)：Yi Li, Xiaofeng Zhao, Ping Song, Chunpeng Ai, Huiling Gai and Dianzhong Wen Organization(s): The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University,
12:10-12:20	1530800：Effect of Resistance Switching Layer Thickness on Characteristics of Li-Doped Zno Resistance Switching Memory Devices Author(s)：Ping Song, Xiaofeng Zhao, Yi Li, Chunpeng Ai, Huiling Gai and Dianzhong Wen Organization(s): The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University,
12:20-12:30	1473610：Porous Tio2 with Controllable Oxygen Vacancy at Atomic Scale for Photocatalytic Water Splitting Author(s)：Lin Zhang, Fan Yang, Xuan Luo Organization(s): Department of Physics, University of Science and Technology of China, Hefei, Anhui 230026, PR China

➢ 微纳加工制造分会场

分会场简介：制造微米和纳米量级零件的一切加工技术，包括半导体制造工艺、机械微加工、纳米压印技术、电子束技术、聚焦粒子束技术、3D 打印等。

主　席：王大志教授（大连理工大学）、赵立波教授（西安交通大学）

时　间：2019 年 10 月 13 日上午　　**地　点：**东湖厅

主持人：王大志教授（大连理工大学）	
08:00-08:25	 特邀报告：仿生微纳偏振光导航传感器的研究进展 报告人：褚金奎 教授 单位：大连理工大学
08:25-08:50	 特邀报告：超薄柔性电子的激光剥离理论与实验研究 报告人：黄永安 教授 单位：华中科技大学
08:50-09:05	1445288：镍基棱镜型高能 X 射线聚焦组合折射透镜的研制 Author(s)：刘静，常广才，伊福廷，张伟伟 Organization(s): 中国科学院高能物理研究所，北京，100049
09:05-09:20	1451518：基于 SiO2 掩膜层的硅基微半球模具加工工艺研究 Author(s)：郑显泽，唐彬，王月，熊壮 Organization(s): 电子工程研究所, 中国工程物理研究院, 绵阳, 四川, 中国
09:20-09:35	1473203：Fabrication of Complex 3D Mesostructures In Advanced Materials By 3D Printing Assisted Methods Author(s)：Yuejiao Wang, Libo Gao, Xiaobin Feng, Yang Lu Organization(s): Department of Mechanical Engineering, City University of Hong Kong, Kowloon, Hong Kong SAR, China
09:35-09:50	1476946：Wireless Detection System of ECG And Heart Rate Signal Based on Flexible Dry Electrode Author(s)：Bingnan Qi，Renxin Wang ，Yiming Shi，Pengfei Zhang，Wendong Zhang，Chenyang Xue Organization(s): Science and Technology on Electronic Test & Measurement Laboratory, North University of China, Taiyuan 030051, China
09:50-10:00	1480620：High Efficiency Electrospinning Based on Arc Multi-Nozzle Spinneret Author(s)：Jiaxin Jiang, Gaofeng Zheng, Xiang Wang, Wenwang Li, Shumin Guo Organization(s): Department of Instrumental and Electrical Engineering, Xiamen University, Xiamen, Fujian, CHINA
10:00-10:10	**茶歇**
主持人：赵立波教授（西安交通大学）	

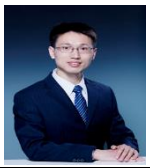
10:10-10:35	 特邀报告：复合微组装技术的研究 报告人：常博 教授 单位：陕西科技大学
10:35-11:10	 特邀报告：Enhancement in Light Extraction Efficiency of Gan-Based Light-Emitting Diodes by Integrating Micro/Nano-Structures 报告人：周圣军 副教授 单位：武汉大学
11:10-11:20	1480777：Manufacturing Metallic Pyramid Tips by Using Silicon Template And Micro Electroforming Techniques Author(s)：Yaming Hu1, Shijie Su1 Organization(s): Key Laboratory for Micro/Nano Technology and System of Liaoning Province, Dalian University of Technology, China
11:20-11:30	1524498：基于 SU-8 胶与阳极氧化法处理的钛片基底结合特性的研究 Author(s)：赖丽燕，丁桂甫，杨卓青 Organization(s): 上海交通大学微米/纳米加工技术国家级重点实验室, 上海交通大学电气信与电子工程学院,上海, 中国
11:30-11:40	1524909：A 2D Waveguide Method for Inclined Lithography Simulation of Thick SU-8 Photoresist Author(s)：Zi-Chen Geng, Zai-Fa Zhou, Hui Dai, Qing-An Huang Organization(s): Key Laboratory of MEMS of Education Ministry, Southeast University, Nanjing, 210096 China
11:40-11:50	1529430：UV-Assisted Rapid Selective Etching on Gaas Surface Author(s)：Lei Wu, Bingjun Yu, Linmao Qian Organization(s): Tribology Research Institute, Key Laboratory of Advanced Technologies of Materials (Ministry of Education), Southwest Jiaotong University, Chengdu, Sichuan Province, P.R. China
11:50-12:00	1454695：微流控 PDMS 芯片设计加工及液滴相关技术的研究 Author(s)：苏振 ，韩笑明，刘全俊 Organization(s): 东南大学 逸夫科技馆国家重点实验室，江苏南京，210096
12:00-12:10	1598745：跨尺度硅湿法深硅刻蚀技术 Author(s)：苗斌，李加东，胡益民，成琰 Organization(s): 中国科学院苏州纳米技术与纳米仿生研究所，国际实验室，江苏，苏州，中国
12:10-12:20	2028821：无机微纳功能纤维有序化成形与应用 Author(s)：李和平 Organization(s): 材料成形与模具技术国家重点实验室，材料科学与工程学院，华中科技大学，武汉 430074

➢ 纳米精度制造分会场

分会场简介：纳米精度表面制造在极大规模集成电路、高精度光学器件、医疗器械、精密模具等诸多高技术领域都有重要的应用，为国防、国民经济和科学技术的发展提供了重要支撑。本议题主要包括纳米精度表面制造所涉及的先进工艺（如磨削、研磨、抛光）、材料去除机理、以及新兴应用领域等内容。

主　　席：钱林茂教授（西南交通大学）、路新春教授（清华大学）

时　　间：2019 年 10 月 13 日上午　　**地　　点：** 三峡厅

主持人：钱林茂教授（西南交通大学）	
08:00-08:25	 特邀报告：纳米精度光学加工 报告人：戴一帆 教授 单位：国防科技大学
08:25-08:50	 特邀报告：芯片制造中晶圆表面纳米精度平坦化原理与技术 报告人：赵德文 研究助理员 单位：清华大学
08:50-09:15	 特邀报告：精密物理实验中高比重钨合金复杂曲面元件精密制造技术研究 报告人：杜文浩 高级工程师 单位：中国工程物理研究院
09:15-09:35	企业报告：MEMS 微器件制备工艺新进展 Author(s)：孟海莎 Organization(s): 西安励德微系统科技有限公司
09:35-09:50	1527421：过硫酸钾对 AISI 52100 轴承钢化学机械抛光性能的影响研究 Author(s)：赵婷，江亮 Organization(s): 西南交通大学 牵引动力国家重点实验室摩擦学研究所，四川 成都 610031
09:50-10:00	1527820：Experimental Study on The Force-Induced Rheological Polishing of Complex Shape Cemented Carbide Cutting Tools Author(s)：Binghai, Mingfeng, Qi Shao, and Yafeng Zhou Organization(s): Key Laboratory of Special Purpose Equipment and Advanced Processing Technology of Ministry of Education, Zhejiang University of Technology, Hangzhou 310014
10:00-10:10	**茶歇**
主持人：路新春教授（北京清华大学）	
10:10-10:35	 特邀报告：力流变抛光技术的发展与实践 报告人：吕冰海 研究员 单位：浙江工业大学

10:35-11:00	 特邀报告：轴承钢表面超精密化学机械抛光研究 报告人：江亮 副研究员 单位：西南交通大学
11:00-11:15	1528241：Ultralow-Voltage Nanoscale Vacuum Channel Diode Working at Atmospheric Author(s)：Hao Zhang, Nannan Li, Chenglong Dong, Kai Yang, Yi Luo Organization(s): Micro/Nano Fabrication Laboratory, Microsystem & Terahertz Research Center, China Academy of Engineering Physics, Chengdu, China Institute of Electronic Engineering, China Academy of Engineering Physics (CAEP), Mianyang, China
11:15-11:30	1531351：TC4 钛合金力流变电化学复合抛光实验研究 Author(s)：王佳焕，周亚峰，吕冰海，江亮，袁巨龙 Organization(s): 浙江工业大学 超精密加工研究中心，浙江 杭州 310023 西南交通大学 牵引动力国家重点实验室摩擦学研究所，四川 成都 610031
11:30-11:45	1700003：Fabrication of Silicon Microstructures Rapidly and Site-Controlledly with Scratching and Electrochemical Etching Author(s)：Yong Peng, Shulan Jiang, Linmao Qian Organization(s): Tribology Research Institute, School of Mechanical Engineering, Southwest Jiaotong University, Chengdu, Sichuan, China

➢ 微纳机电系统分会场

分会场简介：议题内部包括微纳机电系统的基础理论，设计仿真，加工测试方法以及系统集成应用等方面，特别欢迎各种新颖的微纳机电系统研究。

主　席：韦学勇教授（西安交通大学）、王曾晖（电子科技大学）

时　间：2019 年 10 月 13 日上午　　**地　点：**汉南厅

主持人：韦学勇教授（西安交通大学）	
08:00-08:20	 特邀报告：Development of Wireless Sensor Nodes for Animals Husbandry and Medical Applications 报告人：Maeda Ryutaro Professor 单位：XJTU/AIST
08:20-08:40	 特邀报告：基于硅芯片上光学微腔的光机械非线性及其在微纳传感的应用 报告人：张靖 副教授 单位：清华大学
08:40-09:00	 特邀报告：别有“动”天--探索纳米世界的机械运动 报告人：王曾晖 教授 单位：电子科技大学
09:00-09:20	 特邀报告：高灵敏度原子磁强计技术 报告人：丁铭 教授 单位：北京航空航天大学
09:20-09:30	1440409：Effect of Wafer Level Packaging on RF MEMS Switch Performance Author(s)：Qifan Guo, Jiahao Zhao, Guanghong Zhao Organization(s): Department of Precision Instrument, Tsinghua University, Beijing, 100084, P. R.
09:30-09:40	1452525：FlexMEMS Enabled Hetero-Integration for Monolithic FBAR-Above-IC Oscillator Author(s)：Chuanhai Gao，Xin Sun，Sheng Sun，Menglun Zhang Organization(s): State Key Laboratory of Precision Measuring Technology and Instruments, Tianjin University, Tianjin 300072, CHINA
09:40-09:50	1455839：Acoustic Picoliter Droplet Ejector Without Nozzle Author(s)：Y. Ning, Z. Wang, X. Yang, H. Zhang, M. Zhang, B. Liu, X. Duan, and W. Pang Organization(s): State Key Laboratory of Precision Measuring Technology and Instruments, Tianjin University, Tianjin, CHINA
09:50-10:00	1456208：Integrated Microfluidic Chip for In-Field Bulk Modulus Analysis Author(s)：Xi Zhang, Yao Lu, Menglun Zhang, Hongxiang Zhang, Qingrui Yang, Wei Pang Organization(s): State Key Laboratory of Precision Measuring Technology and Instruments, Tianjin University, Tianjin, CHINA
10:00-10:10	**茶歇**

主持人：王曾晖（电子科技大学）	
10:10-10:30	 特邀报告：Wearable Nanodevices for Single-Cell Sensing and Transfection 报告人：常凌乾 教授 单位：北京航空航天大学
10:30-10:50	 特邀报告：非线性 MEMS 振荡器的随机动力学 报告人：宦荣华 教授 单位：浙江大学
10:50-11:10	 特邀报告：嵌套环微机电陀螺研究 报告人：肖定邦 教授 单位：国防科技大学
11:10-11:30	 特邀报告：固态量子系综磁成像机理及应用研究 报告人：唐军 教授 单位：中北大学仪器与电子学院
11:30-11:50	 特邀报告：基于硅微谐振器的高分辨率和高稳定性加速度传感器研究进展 报告人：赵纯 副研究员 单位：华中科技大学
11:50-12:00	1465322：Design and Fabracation of A Novel MEMS Relay with Low Actuation Voltage and High Performance Author(s)：Hao Li, Yong Ruan, Zheng You, Zhi-qiang Song and Yuan-kai Zhou Organization(s): State Key Laboratory of Precision Measurement Technology and Instruments, Department of Precision Instrument, Tsinghua University, Haidian District, Beijing 100084
12:00-12:10	1475182：Design of Heart Sound ECG In-Situ Synchronous Detector Author(s)：LI Chenge, Lian Yuqi, WANG Weidong, DUAN Sicun, Zang Guojun, XUE Chenyang Organization(s): Science and Technology on Electronic Test & Measurement Laboratory, North University of China, Taiyuan 030051, China
12:10-12:20	1477582：A New Type of Breast Transmissive 3D Ultrasonic Tomography System Author(s)：ZHANG Yu，PEI Yu Organization(s): Science and Technology on Electronic Test & Measurement Laboratory, North University of China
12:20-12:30	1478246：3D Porous Graphene Aerogel@Gox Based Microfluidic Biosensor for Electrochemical Glucose Detection Author(s)：Xu Jian, Hu Tao, Ni Zhonghua Organization(s): Jiangsu Key Laboratory for Design and Manufacture of Micro–Nano Biomedical Instruments, Southeast University, Nanjing, Jiangsu, China
12:30-12:40	1700004：可变形微颗粒介电力相互作用与运动 Authors：周腾 Organization(s): 机电工程学院，海南大学，海口，海南，中国

➢ 微纳流控芯片系统与应用分会场

分会场简介：微流控芯片、纳流控芯片、液滴微流控、器官芯片、POCT。

主　　席：方群教授（浙江大学）

时　　间：2019 年 10 月 13 日上午　　**地　　点：** 神龙厅

主持人：夏兴华教授 （南京大学）

08:00-08:20	 特邀报告：Microfluidics for Tool-Building In Chemistry And Biology 报告人：Xingyu Jiang Chair Professor 单位： Southern University of Science and Technology
08:20-08:40	 特邀报告：微流控芯片单细胞分析 报告人：刘笔锋 博士 单位：华中科技大学
08:40-09:00	 特邀报告：基于三维微流控芯片的循环肿瘤细胞体外及体内检测 报告人：黄卫华 教授 单位：武汉大学
09:00-09:20	 特邀报告：微流控芯片上细胞 3D 培养与化学刺激 报告人：林金明 教授 单位：清华大学
09:20-09:40	 特邀报告：纳通道物质输运特性及其应用 报告人：夏兴华 教授 单位：南京大学
09:40-09:50	1384723：Microfluidic Flow-Through SPME Chip for Online Separation and MS Detection of Multiple Analyses in Complex Matrix Author(s)：Yujun Chen, Tao Gong, Cilong Yu, Xiang Qian , and Xiaohao Wang Organization(s): Tsinghua Shenzhen International Graduate School, Tsinghua University, Shenzhen, Guangdong, China
09:50-10:00	1476553：Design and Fabrication of A Vascular on A Chip Author(s)：Xiang Zhang，Zhenxing Wang，Yu Shrike Zhang，Shujie Yan, Chuanyu Hou，Youping Gong，Jingjiang Qiu，Mo Chen，Qian Li Organization(s): School of Mechanics & Engineering Science, Zhengzhou University, Zhengzhou , Henan, CHINA
10:00-10:10	**茶歇**

主持人：Chair Professor : Xingyu Jiang, Southern University of Science and Technology	
10:10-10:30	 特邀报告：液体活检新器件新方法 报告人：杨朝勇 教授 单位：厦门大学
10:30-10:50	 特邀报告：用于肿瘤单细胞测序的微流控芯片 报告人：魏泽文 研究员 单位：北京理工大学
10:50-11:10	 特邀报告： Patient-Specific ‘Glioblastoma-On-A-Chip’ For Personalized Anti-PD-1 Immunotherapy 报告人：陈伟强 助理教授 单位：美国纽约大学
11:10-11:30	 特邀报告：超微量高通量微流控分析筛选系统的研究 报告人：方群 教授 单位：浙江大学
11:30-11:40	1478303：The Silicon Nanospikes Integrated on Sidewalls of Micropillars in A Microfluidic Channel for Mechanical Cell Lysis Author(s)：Feng Tian，Lei Li，Hao Chang，Jie Zhang，Cheng Wang，Wei Rao，Huan Hu, Chuanyu Hou，Youping Gong，Jingjiang Qiu，Mo Chen，Qian Li Organization(s): ZJUI Institute, International Campus, Zhejiang University, Haining, 314400, China
11:40-11:50	1480809：A Novel Si Interposer with Self-Adaptive Microjet Microfluid for High Power Integration Author(s)：Miao Yu, Jian Zhu Organization(s): School of Electronic Science and Engineering, Nanjing University, Nanjing, Jiangsu Province, China 2Nanjing Electronic Devices Institute, Nanjing, Jiangsu Province
11:50-12:00	1481117：Programmable Plasmonic Switching of Microbubbling by Moving Contact Lines Author(s)：Yuliang Wang, Xiaolai Li, Mikhail E. Zaytsev, Chenliang Xia, Xuehua Zhang, Harold J. W. Zandvliet, and Detlef Lohse Organization(s): Robotics Institute, School of Mechanical Engineering and Automation, Beihang University, Beijing 100191, P.R. China
12:00-12:10	1524891：基于台阶乳化的微液滴直径调控研究 Author(s)：连娇愿，许忠斌，刘聪 Organization(s): 化工机械研究所, 能源工程学院, 浙江大学
12:10-12:20	1529566：Reconfigurable Microfluidics in A Rubik’S Cube Author(s)：X. Lai, H. Yu, D. Li. Organization(s): State Key Laboratory of Precision Measuring Technology and Instruments, Tianjin University, Tianjin, China
12:20-12:30	1608304：基于微流控芯片和敞开式离子源集成系统快速分析研究 Author(s)：龚涛，钟伦超，陈禹君，郭子钰，钱翔，王晓浩 Organization(s): 清华大学深圳研究生院，先进制造学部

➢ 微纳米力学与表征技术分会场

分会场简介：涉及材料和器件在微纳米尺度下的力学理论、力学行为/特性、建模方法和实验表征测试方法等。主要包括但不限于对低维（如金属、半导体纳米线、二维石墨烯、硫化钼及其多级组装结构衍生物等）以及三维微纳结构材料实现高精度的微纳米力学行为测量表征，用以指导对微纳材料及结构力学性能的评判以及微纳器件的设计和应用。

主　　席：王卫东教授（西安电子科技大学）、陆洋教授（香港城市大学）、李明林教授（福州大学）

时　　间：2019 年 10 月 13 日下午　　**地　　点：**隆中厅

主持人：王卫东教授（西安电子科技大学）　高立波副教授（西安电子科技大学）	
14:00-14:20	 特邀报告：纳米孔超灵敏传感器的设计理论与制造 报告人：陈云飞　教授 单位：东南大学
14:20-14:40	 特邀报告：In-Situ Electron Tomography 报告人：王宏涛　教授 单位：浙江大学
14:40-15:00	 特邀报告：压电 MEMS 器件设计理论与实验研究 报告人：杜亦佳　副研究员 单位：中国工程物理研究院
15:00-15:20	 特邀报告：Progress on Advanced Sensors Devices and Sensing Materials: Conceptualization, Methodology And Applications 报告人：吕晓洲　副教授 单位：西安电子科技大学
15:20-15:30	1482657：Design and Analysis of A Bistable MEMS Inertial Switch with Self-Locking And Reverse-Unlocking Functions Author(s)：Min Liu，Yingmin Zhu，Min Tao and Weidong Wang Organization(s): School of Mechano-Electronic Engineering, Xidian University, Xi'an 710071, CHINA
15:30-15:40	**茶歇**
主持人：李明林教授（福州大学）　赖联锋教授（宁德师范学院）	
15:40-16:00	 特邀报告：基于线缺陷的功能材料设计胶体马达群体运动的物理化学机制 报告人：张助华　教授 单位：南京航空航天大学

16:00-16:20	 特邀报告：Nanomechanical Characterization of The Mechanical Strength f Carbon Nanotube - Polymer Interfaces 报告人：陈小明 教授 单位：西安交通大学
16:20-16:40	 特邀报告：基于导电 AFM 石墨烯原子尺度载流摩擦特性和调控研究 报告人：彭倚天 教授 单位：东华大学
16:40-17:00	 特邀报告：激光等离激元初始汽泡成核及调控机理研究 报告人：王玉亮 副教授 单位：北京航空航天大学
17:00-17:20	 特邀报告：高超声速风洞 MEMS 摩阻测试技术 报告人：王雄 副研究员 单位：中国空气动力研究与发展中心超高速空气动力研究所
17:20-17:30	企业报告：Characterizations of Nano-Mechanical Properties Applied in Display Industries Author(s)：魏伯任 Organization(s): 布鲁克（北京）科技有限公司
17:30-17:40	1482704：Biomimetic and Radially Symmetric Graphene Aerogel for Flexible Electronics Author(s)：Libo Gao, Weidong Wang, and Yang Lu Organization(s): School of Mechano-Electronic Engineering, Xidian University, Xian 710071, China
17:40-17:50	1482871：Measurement of Pure Tantalum’s Elastic Modulus and Hardness by Nanoindentation Method Author(s)：Xiao Wang, Libo Gao, Yang Lu, Weibing Li and Weidong Wang Organization(s): School of Mechano-Electronic Engineering, Xidian University, Xi’an 710071, CHINA
17:50-18:00	1497991：Direct Quantification of Mechanical Responses of Tisin/Ag Multilayer Coatings Author(s)：Chaoqun Dang，Yang Lu Organization(s): Department of Mechanical & Biomedical Engineering, City University of Hong Kong, Kowloon, Hong Kong SAR, CHINA
18:00-18:10	1522367：A Novel Fabrication Method of Hierarchical Graphene Wrinkles in PMMA-PDMS Bilayer System Author(s)：State Key Laboratory of Mechanical System and Vibration, School of Mechanical Engineering, Shanghai Jiao Tong University, Shanghai 200240, CHINA

➢ 微纳表征与测量分会场

分会场简介：1. 微纳表征与测量新原理和新方法；2. 微纳材料、结构与器件物性表征技术与仪器；3. 微纳几何量测量技术与仪器；4.IC 纳米结构测量与缺陷检测技术及装备；5.微纳表征与测量应用。

主　　席：刘世元教授（华中科技大学）

时　　间：2019 年 10 月 13 日下午　　**地　　点：** 黄鹤楼厅

主持人：刘世元教授（华中科技大学）	
14:00-14:20	 特邀报告：亚表面缺陷三维暗场共焦显微技术研究进展 报告人：刘俭 教授 单位：哈尔滨工业大学
14:20-14:40	 特邀报告：基于纳米制造的实现超灵敏测量 报告人：刘磊 教授 单位：东南大学
14:40-15:00	 特邀报告：面向跨尺度、超精密制造的测量关键技术 报告人：陈远流 研究员 单位：浙江大学
15:00-15:10	1468888：Measurement of Ultra-Low MEMS Packaging Stress by Using In-Situ Stress Magnifying Structure and Micro-Raman Spectroscopy Author(s)：Wei Xu1，Meng Liu and Bin Tang Organization(s): Institute of Electronic Engineering, China Academy of Engineering Physics, Mianyang, Sichuan, CHINA
15:10-15:20	1469285：光通过亚波长金属纳米圆孔超透射现象的仿真和实验研究 Author(s)：涂龙，胡振峰，王文会 Organization(s): 国防科技创新研究院前沿交叉技术研究中心，北京
15:20-15:30	1476290：基于多目标差分进化算法的套刻标记形貌与测量配置优化 Author(s)：李旷逸，石雅婷 ，陈修国，谷洪刚，江浩，刘世元 Organization(s): 数字制造装备与技术国家重点实验室，华中科技大学，武汉，湖北，中国
15:30-15:40	**茶歇**
主持人：刘俭教授 （哈尔滨工业大学）	
15:40-16:00	 特邀报告：基于光频梳的三维面形测量 报告人：吴冠豪 副教授 单位：清华大学

16:00-16:20	 特邀报告：反射光谱精密测量技术及其在微纳制造中的应用 报告人：胡春光 副教授 单位：天津大学
16:20-16:40	 特邀报告：高分辨成像穆勒矩阵椭偏仪研制与应用 报告人：陈修国 副教授 单位：华中科技大学
16:40-17:00	 特邀报告：高分辨成像穆勒矩阵椭偏仪研制与应用 报告人：李星辉 助理教授 单位：清华大学深圳研究生院
17:10-17:20	1517914：A Measuring Method of Micro Cantilever Stiffness Based on Negative Electrostatic Stiffness Author(s)：X.S. Dong, Y. Huang, Q.W. Huang, P. Lai, J.H. Zhu Organization(s): Science and Technology on Reliability Physics and Application of Electronic Component Laboratory, No.5 Electronics Research institute of the Ministry of Industry and Information
17:20-17:30	1524685：Fabrication and Electrochemical Characteristics of Graphene/Cu/Ni Composite Electrode Author(s)：Kun Wang, Xueting Li, Wenli Zhou, Yan Yu, Junxiong Gao, Yunbo Wang Organization(s): School of Optical and Electronic Information, Huazhong University of Science and Technology, Wuhan, Hubei, China
17:30-17:40	1528075：暗场散射缺陷检测仪研制及其在晶圆表面缺陷检测中的应用 Author(s)：罗成峰，朱正波，马冬林，陈修国，刘世元 Organization(s): 数字制造装备与技术国家重点实验室，华中科技大学，武汉，湖北，中国
17:40-17:50	1528222：Study on Specific Contact Resistivity of Boron Nitride Nanomaterials Author(s)：Shijie Liu，Ling Li Organization(s): Department of Microelectronics Science and Technology, Harbin Institute of Technology, Harbin,Heilongjiang Province, China

➢ 微纳能源技术分会场

分会场简介：微纳能量转换材料、器件及应用。

主　席：丁建宁教授（江苏大学）

时　间：2019 年 10 月 13 日下午　　**地　点：** 东湖厅

主持人：丁建宁教授（江苏大学）	
14:00-14:20	 特邀报告：How Can We Engineer Materials for Hot Carrier Solar Cell 报告人：Gavin Conibeer Professor 单位：University of New South Wales
14:20-14:40	 特邀报告：柔性微纳仿生结构的制备及其在太阳电池中的应用 报告人：宋伟杰 研究员 单位：中科院宁波材料所
14:40-15:00	 特邀报告：从 FeSn5 到 NiSn5 新相：亚稳态形成机理及用于锂离子电池负极 报告人：韩伟强 教授 单位：浙江大学
15:00-15:10	1469768：Design and Experimental Study on A Multi-Source Energy Harvester Based on Solar and Radioisotope Sources Author(s)：Li hao, You Zheng, Zhang Gaofei Organization(s): Collaborative Innovation Center for Micro/Nano Fabrication, Device and System, State Key Laboratory of Precision Measurement Technology and Instruments, Department of Precision Instruments, Tsinghua
15:10-15:20	1477059：Flexible and Stretchable Energy Harvester Based on Low Energy Dissipation Pre-Encapsulation Method Author(s)：Yiwei Wang，Jianbing Xie，Member, IEEE, Kai Tao, Member, IEEE Organization(s): Key Laboratory of Micro/Nano Systems for Aerospace, Ministry of Education, Northwestern Polytechnical University, China
15:20-15:30	1520404：风力发电机叶片振动控制策略的研究 Author(s)：王海，岑思阳，杨春来,郑衍畅，朱荣帅 Organization(s): 安徽工程大学机械与汽车工程学院,芜湖
15:30-15:40	**茶歇**
主持人：韩伟强教授（浙江大学）	
15:40-16:00	 特邀报告：一维氧化锌的界面调控与应用 报告人：张跃 教授 单位：北京科技大学

16:00-16:20	 特邀报告：固液界面摩擦起电设计及能源收集利用 报告人：王道爱 研究员 单位：中国科学院兰州化学物理研究所
16:20-16:40	 特邀报告：量子点柔性显示的 ALD 稳定化技术研究 报告人：陈蓉 教授 单位：华中科技大学
16:40-16:50	1521882：Microelectrodes Fabricated by Spray Drying Method: A Case of Lifepo4 Author(s)：De Li Organization(s): School of Materials Science and Engineering, Hainan University, Haikou, Hainan, CHINA
16:50-17:00	1527609：Embedded Triboelectric Active Sensors for Real-Time Pneumatic Monitoring Author(s)：X. P. Fu，C. Zhang Organization(s): Beijing Institute of Nanoenergy and Nanosystems, Chinese Academy of Sciences, Beijing, China
17:00-17:10	1529875：Fabrication Technology and Characteristics Research of ZnO nanorods based Acceleration Sensor Author(s)：Baodong Hou, Hongmei Liu Organization(s): The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University
17:10-17:20	1529972：微机械磁性反转电磁双稳态振动能量采集器 Author(s)：王凯，戴旭涵，向小健，丁桂甫，赵小林 Organization(s)：上海交通大学微米/纳米加工技术国家级重点实验室，上海交通大学电气信息与电子工程学院,上海，中国

➢ 微纳米马达与微纳米智能机器人分会场

分会场简介：自驱动微纳米马达/机器人、外场驱动微纳米马达/机器人、微纳米马达集群行为/活性物质、微纳米马达/机器人理论计算与模拟、微纳米马达/机器人应用。

主　席：官建国教授（武汉理工大学）、贺强教授（哈尔滨工业大学）

时　间：2019 年 10 月 13 日下午　　**地　点：**三峡厅

主持人：官建国教授（武汉理工大学）		
14:00-14:20		特邀报告：Nanotheranostic Opportunities and Challenges 报告人：张学记 教授 单位：深圳大学
14:20-14:40		特邀报告：仿生粘附界面材料 报告人：王树涛 研究员 单位：中国科学院
14:40-15:00		特邀报告：胶体马达群体运动的物理化学机制 报告人：贺强 教授 单位：哈尔滨工业大学
15:00-15:20		特邀报告：Progress in Thermochromic Materials 报告人：Y. Long　Senior Lecturer 单位：Nanyang Technological University
15:20-15:30	**茶歇**	
主持人：贺强教授 （哈尔滨工业大学）		
15:30-15:50		特邀报告：　Magnetic Swimming Microrobots for Biomedicine 报告人：张立 副教授 单位：香港中文大学
15:50-16:10		特邀报告：多维度光操作纳米机器人的设计，制备和挑战 报告人：唐晋尧 副教授 单位：香港大学
16:10-16:30		特邀报告：Phototaxis Motion Behavior of Self-Propelled Water Droplet Microrobot in Oil Solvent 报告人：李隆球 教授 单位：哈尔滨工业大学

16:30-16:50		特邀报告：Dynamic Nanomachines For Clean Air, Water and Energy 报告人：Alexander A. Solovev 教授 单位：复旦大学
16:50-17:00		特邀报告：Fabrication and Biomedical Applications of Micro/Nano-Motors 报告人：马星 教授 单位：哈尔滨工业大学
17:00-17:20		特邀报告：Colloidal Electronic Cells Based on 2D Materials 报告人：刘平伟 研究员 单位：浙江大学
17:20-17:40		特邀报告：微纳米马达在血液疾病治疗中的应用研究 报告人：毛春 教授 单位：南京师范大学
17:40-18:00		特邀报告：Collective Behaviors of Micromotors 报告人：牟方志 副研究员 单位：武汉理工大学

➢ 微纳米生物医药分会场

分会场简介：1.微纳米生物材料；2.微纳米生物器件；3.微纳米药物制剂；4.微纳米生物材料及其相关产品评价和临床；5.微纳米生物材料及其相关产品管理。

主　　席：张其清研究员（中国医学科学院生物医学工程研究所）

时　　间：2019 年 10 月 13 日下午　　**地　　点：**黄鹤楼厅

主持人：张其清研究员（中国医学科学院生物医学工程研究所）
李温斌教授（首都医科大学附属北京安贞医院）

14:00-14:20		特邀报告：胶原基生物材料及其制品的研究与产业化 报告人：张其清 教授 单位：中国医学科学院生物医学工程研究所
14:20-14:30		特邀报告：智能响应性 DNA 纳米器件及其在生物医药中的应用 报告人：朱小立 教授 单位：上海大学
14:30-14:40		特邀报告：基于 CMUT 的乳腺癌检测超声 CT 系统 报告人：张国军 教授 单位：中北大学
14:40-14:50		特邀报告：Preparation of Self-Assembled Micelles by Supercritical Fluid Technology for Improving Germacrone Oral Bioavailability 报告人：冯年平 教授 单位：上海中医药大学
14:50-15:00		特邀报告：微纳生物医学器件 报告人：谢曦 教授 单位：中山大学
15:00-15:10		特邀报告：基于微纳材料的超灵敏、多指标生物检测技术构建及应用 报告人：徐宏 研究员 单位：上海交通大学
15:10-15:20		特邀报告：Janus 磁性纳米粒的制备及其在肿瘤治疗中的应用 报告人：陈红丽 教授 单位：新乡医学院
15:20-15:30		特邀报告：载血管内皮生长因子组织工程小口径血管缓释模型的构建 报告人：李温斌 教授 单位：首都医科大学附属北京安贞医院
15:30-15:40	**茶歇**	

主持人：王春仁研究员（中国食品药品检定研究院） 储茂泉教授（同济大学）	
15:40-16:00	 特邀报告：纳米生物材料的安全性评价 报告人：王春仁 研究员 单位：中国食品药品检定研究院
16:00-16:10	 特邀报告：基于二维烯的微纳米生物医学光子学研究 报告人：张晗 教授 单位：深圳大学
16:10-16:20	 特邀报告：Graphitic Carbon Nanocages for Sustained Drug Release and Cancer Therapy 报告人：储茂泉 教授 单位：同济大学
16:20-16:30	 特邀报告：骨组织工程（BTE）技术 2.0 研究时期的思考与探索 --从“概念验证”（POC）到“价值验证”（POV） 报告人：张智勇 教授 单位：广州医科大学附属第三医院再生医学与 3D 打印技术转化研究中心
16:30-16:40	 特邀报告：纳米颗粒材料的可控设计与疾病诊治的应用 报告人：古宏晨 教授 单位：上海交通大学生物医学工程学院
16:40-16:50	 特邀报告：基于纳米生物传感技术的急性早幼粒细胞白血病标志基因检测研究 报告人：刘爱林 教授 单位：福建医科大学
16:50-17:00	 特邀报告：纳米载体技术用于肿瘤光学精准治疗 报告人：王银松 教授 单位：天津医科大学
17:00-17:10	1427771：水热制备镁掺杂多孔羟基磷灰石载药微球的研究 Author(s)：黄浩，陈景帝，李倩，邹琳 Organization(s): 福州大学 生物和医药技术研究院，福建 福州 350002
17:10-17:20	1471701：Novel Strategies for Rapid Elimination of Toxic Blood Heavy Metal Ions Author(s)：Mimi Wan, Chun Mao, Jian Shen Organization(s): National and Local Joint Engineering Research Center of Biomedical Functional Materials, School of Chemistry and Materials Science, Nanjing Normal University, Nanjing
17:20-17:30	1478179：负载 BMP2/TGFβ1/VEGF 的壳聚糖纳米缓释系统诱导成骨效果及机制的研究 Author(s)：王志浩，孙健 Organization(s): 青岛大学附属医院口腔颌面外科
17:30-17:40	1528709：Homologous-Targeting Biomimetic Nanoparticles for Photothermal Therapy and Nrf2-Sirna Amplified Photodynamic Therapy Against Oral Tongue Squamous Cell Carcinoma Author(s)：Shurui Shi，Changyi Li，Yinsong Wang Organization(s): School of Dentistry & Hospital of Stomatology, Tianjin Medical University,

17:40-17:50	1700001：Superoxide Transient Stimulation Improves the Efficiency Of Neural Stem Cells Differentiating Into Neural Cells Author(s)：江一波 Organization(s): 深圳市人民医院 生物医学工程研究院
17:50-18:00	1636806：Catalytic Polymer-Metalloporphyrin Dot for in Vivo Imaging and Chemiluminescence Dynamic Therapy Author(s)：黄香宜，任吉存 Organization(s): 上海交通大学

➢ 微纳米光子学分会场

分会场简介：1.超材料及相关器件与系统；2.纳米光子材料；3.有源及无源光子平台；4.光学捕获和光学显微操纵；5.纳米成像和纳米光谱学；6.光学传感、成像和光子计数；7.量子器件及量子成像。

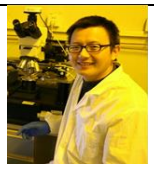
主　　席：吴一辉研究员（中国科学院长春光学精密机械与物理研究所）、李铁研究员（中国科学院上海微系统与信息技术研究所）

时　　间：2019 年 10 月 13 日下午　　**地　　点：**神龙厅

主持人：吴一辉研究员（中国科学院长春光学精密机械与物理研究所）	
14:00-14:20	 特邀报告：半导体太赫兹光频梳 报告人：黎华 研究员 单位：中国科学院上海微系统与信息技术研究所
14:20-14:40	 特邀报告：基于光子晶体的电光调制系统芯片 报告人：余华 教授 单位：重庆大学
14:40-15:00	 特邀报告：基于等离激元增强的 AlGaN 基紫外探测器研究 报告人：孙晓娟 副研究员 单位：中国科学院长春光机所
15:00-15:20	 特邀报告：纳米结构表面光学矢量场的超分辨测量表征 报告人：白本锋 副教授 单位：清华大学
15:20-15:30	**茶歇**
主持人：李铁研究员（中国科学院上海微系统与信息技术研究所）	
15:30-15:50	 特邀报告：集成电路制造装备技术中跨尺度微纳光学计量与检测技术 报告人：周维虎 研究员 单位：中国科学院微电子研究所
15:50-16:10	 特邀报告：超构表面中的角度色散：物理与应用 报告人：何琼 副教授 单位：复旦大学
16:10-16:30	 特邀报告：面向红外气体传感的超结构滤光探测阵列芯片 报告人：易飞 副教授 单位：华中科技大学

16:30-16:50	 特邀报告：Femtosecond Laser: A Versatile Tool for Nanoprinting 报告人：王学文 教授 单位：武汉理工大学
16:50-17:10	 特邀报告：法诺共振回音壁模式光学微腔生物传感技术研究 报告人：王越 助理研究员 单位：中国科学院长春光学精密机械与物理研究所
17:10-17:20	1446849：Connected Nanoholes Based Plasmonic Tweezers Author(s)：Xue Han，Viet Giang Truong，Changsen Sun，Sile Nic Chormaic Organization(s): School of Optoelectronic Engineering and Instrumentation Science, Dalian University of Technology, Dalian, Liaoning, CHINA
17:20-17:30	1523413：Enhanced Photoelectric Performance for Silicon Nanowire–Organic Hybrid Solar Cells Through The Incorporation of Gold Nanoparticles Author(s)：Jin Wang，Nannan Li，Yi Luo Organization(s): Micro/Nano Fabrication Laboratory, Microsystem & Terahertz Research Center, China Academy of Engineering Physics, Chengdu, China
17:30-17:40	1474813：FDTD Simulation on Transmittance of Silica Microsphere Thin Films with Varying Embedding in An Optical Adhesive Author(s)：Yan Xin, Li Xiangmeng, Zhao Zepeng, Zhu Xijing Organization(s): Shanxi Key Laboratory of Advanced Manufacturing Technology, North University of China, Taiyuan, Shanxi, 030051, CHINA;
17:40-17:50	1529179：Dual Dark Polaritons in A Triple Quantum Well Microcavity Author(s)：X. Meng, Z. C. Zhuo and X. M. Su Organization(s): Key Lab of Coherent Light, Atomic and Molecular Spectroscopy, Ministry of Education, Physics College, Jilin University Changchun 130012, China

➢ **微纳传感器/执行器分会场**	
分会场简介：议题包括但不局限于压力传感器、振动传感器、湿敏传感器、磁敏传感器、气敏传感器、新型 MEMS 执行器、纳米传感器材料等。 **主　席：**张宇峰教授（哈尔滨工业大学）、赵晓锋教授（黑龙江大学） **时　间：**2019 年 10 月 14 日上午　　**地　点：**隆中厅	
主持人：赵晓锋教授（黑龙江大学）	
08:00-08:25	 特邀报告：用于体表生理信号监测的微纳传感技术 报告人：董瑛 副研究员 单位：清华大学深圳研究生院
08:25-08:50	 特邀报告：面向智能服装的功能仿生纤维状传感器件 报告人：侯成义 副研究员 单位：东华大学
08:50-09:00	1481356：Simulation Analysis on Nonlinear Vibration of Silicon Resonator Beam Accelerometer Based on Static Load Method Author(s)：Mengxia Liu, Jian Cui, Qiancheng Zhao Organization(s): National Key Laboratory of Science and Technology on Micro/Nano Fabrication Institute of Microelectronics, Peking University, Beijing 100871, P. R. China
09:00-09:10	1481719：Simulation Analysis of Wheeled Horizontal Axis Micromachined Gyroscope with Off-Plane Motion Suppression Structure Author(s)：Yang H B，Cui J ，Zhao Q C Organization(s): National Key Laboratory of Science and Technology on Micro/Nano Fabrication Institute of Microelectronics, Peking University, Beijing 100871, P. R. China
09:10-09:20	1482130：More Accurate System-Level Model of Thermal Wind Speed and Direction Sensor Author(s)：Jia-Zhen Zhang, Zai-Fa Zhou, Ming Qin and Qing-An Huang Organization(s): Key Laboratory of MEMS of the Ministry of Education, Southeast University,
09:20-09:30	1485501：Design and Fabrication of A Prototype MEMS Based Electromagnetic Linear Motor Author(s)：Wei Feng , Chao Zhi, Mingshan Qu,Bin Tang Organization(s): Centor of Advanced Sensor and Actuator, Institute of Electronic Engineering, China Academy of Engineering Physics, Mianyang, 621900, China
09:30-09:40	1520862：Time-Delay Characteristic of A Self-Recoverable Micro-Fluidic Inertial Switch Author(s)：Teng Shen，Jiahan Huang Organization(s): School of Mechanical and Electrical Engineering, Guangzhou university, Guangzhou, Guangdong Province, China
09:40-09:50	1526339：Detection of The Nanoparticles Transmembrane Behaviors Using Flexible Biosensor Author(s)：Feng Zhou, Yanna Li, Qiannan Xue, Xuexin Duan Organization(s): State Key Laboratory of Precision Measuring Technology and Instruments, School of Precision Instrument and Optoelectronics Engineering, Tianjin University, Weijin Road 92, Tianjin, 300072，China

09:50-10:00	1526637：Unidirectional Sensitive Flexible Sensor for Bending Measurements Author(s)：Mengmeng Li，Jiaming Liang，Min Zhang Organization(s): Graduate School at Shenzhen, Tsinghua University, Shenzhen, Guangdong, China
10:00-10:10	**茶歇**
主持人：赵晓锋教授（黑龙江大学）	
10:10-10:35	 特邀报告：微纳协同特殊浸润表面制备及应用研究 报告人：张海峰 副教授 单位：哈尔滨工业大学
10:35-11:00	 特邀报告：The Construction of Nanomaterial and Nanostructure and Its Applications in Flexible Intelligent Sensors 报告人：杨维清 教授 单位：西南交通大学
11:00-11:10	1481265：Low Cost and Distance-Insensitive Paper-Based LC Wireless Humidity Sensor System Author(s)：Mingzhu Xie，Lifeng Wang，Wenjun Deng，Qing-An Huang Organization(s): The Key Laboratory of MEMS of the Ministry of Education, Southeast University, Nanjing, China
11:10-11:20	1527310：Design and Characterization of A Novel Biaxial Bionic Hair Flow Sensor Based on Resonant Sensing Author(s)：Zhuoyue Liang Organization(s): School of Instrument Science & Engineering, Southeast University, Nanjing 210096, P.R. China
11:20-11:30	1528400：A Near-Space Directional Anemometer Based on Pressure Difference Amplifying Structure Author(s)：L.D. Du, Y. C. Pan, Y. S. Zhu, Z. Zhao, Z. Fang Organization(s): State Key laboratory of Transducer Technology, Institute of Electronics, Chinese Academy of Sciences, Beijing, CHINA
11:30-11:40	1529620：A Sandwich-Structured Ration Device Based on Polyimide-Transferred Volume Sensor for Flexible Microfluidic System Author(s)：Z. Pu, J. Ma, H. Yu and D. Li Organization(s): State Key Laboratory of Precision Measuring Technology and Instruments, Tianjin University, CHINA
11:40-11:50	1531741：The Hybrid Fabrication Process of Metal/Silicon Composite Structure for MEMS S&A Device Author(s)：Tengjiang Hu, Kuang Fang, Zhiming Zhang Organization(s): State Key Laboratory for Manufacturing System Engineering, Xi'an Jiaotong University, Xi'an710049, China
11:50-12:00	20002：高精度多功能油液检测传感器的设计 Author(s)：史皓天，张洪朋 Organization(s): 大连海事大学 轮机工程学院，辽宁 大连 116026

➢ 微纳米技术应用分会场

分会场简介：微纳米技术应用的重点是产业化，目前我国已形成了从产品研发设计工艺验证到量产的全产业链环境。本分会场将对我国 MEMS 应用的全产业链环境进行研讨，邀请了北京大学张大成教授介绍 MEMS 产品研发工艺，无锡华润上华科技公司客户工程部技术经理高级工程师刘逵先生介绍集成电路产线 MEMS 产品量产工艺，东南大学周再发教授介绍 MEMS 产品设计方法，上海微系统所李铁研究员介绍研发的 MEMS 传感器，苏州敏芯公司 CEO 李刚博士介绍 MEMS 传感器成功创业经历，无锡麦姆斯公司 CEO 王懿先生介绍 MEMS 传感器产业现状，此外还有 5 个口头报告。相信通过上述研讨，您将会对我国 MEMS 全产业链环境有初步的了解，对您进行 MEMS 产品开发和推进产业化工作有借鉴作用。欢迎积极参加研讨！

主　席：王跃林研究员（中科院上海微系统与信息技术研究所）

时　间：2019 年 10 月 14 日上午　　**地　点：**黄鹤楼厅

主持人：王跃林研究员（中科院上海微系统与信息技术研究所）

08:00-08:25	 特邀报告：以 IC 芯片制造模式制造 MEMS 芯片 报告人：张大成 教授 单位：北京大学信科学院
08:25-08:50	 特邀报告：华润上华的 MEMS 代工业务 报告人：刘逵 高级工程师 单位：华润上华科技有限公司
08:50-09:15	 特邀报告：适用于 MEMS 批量制造的工艺参数提取方法 报告人：周再发 研究员 单位：东南大学
09:15-09:40	 特邀报告：微纳融合的气体传感器 报告人：李铁 研究员 单位：中国科学院上海微系统与信息技术研究所
09:40-09:50	1529231：A Passive Method for Reducing Temperature Sensitivity of a Sub-Nano-G MEMS Seismic Accelerometer for Marsquake Monitoring Author(s)：Huafeng Liu, and W. T. Pike Organization(s): Optical and Semiconductor Devices Group, Department of Electrical and Electronic Engineering, Imperial College London, London, SW7 2AZ, United Kingdom
09:50-10:00	1474862：Research on The Mechanical Impact Characteristics and Reliability of A MEMS Relay Author(s)：Hao Li, Yong Ruan, Zheng You, Zhi-qiang Song,Yuan-kai Zhou, Tong-Liu and Chang-Yun He Organization(s): State Key Laboratory of Precision Measurement Technology and Instruments, Department of Precision Instrument, Tsinghua University, Haidian District, Beijing 100084

10:00-10:10	**茶歇**
主持人：张大成教授 （北京大学信科学院）	
10:10-10:30	 特邀报告：中国 MEMS 产业国产化与敏芯之路 报告人：李刚 董事长 单位：苏州敏芯微电子有限公司总经理
10:30-10:50	 特邀报告：固态传感器产业现状及思考 报告人：王懿 CEO 单位：麦姆斯咨询
10:50-11:05	1480686：Development of Aln Based Piezoelectric Ultrasonic Transducer Array Author(s)：Fu Yuedong, Sun Sheng, Niu Pengfei, Zhang Menglun, Pang Wei Organization(s): State Key Laboratory of Precision Measuring Technology & Instruments, Tianjin University, Tianjin 300072, China
11:05-11:20	1480879：High-Precision Frequency Measurement for MEMS Resonant Sensors Based on Multi-Channel Phase Shift Clock Method Author(s)：Dong Li，Qiancheng Zhao，Jian Cui Organization(s): National Key Laboratory of Science and Technology on Micro/Nano Fabrication Institute of Microelectronics, Peking University, Beijing 100871, P. R. China
11:20-11:35	1495794：A MEMS Gravimeter Qualified for Earth Tides Measurement Author(s)：ShiHao Tang, HuaFeng Liu, ShiTao Yan and LiangCheng Tu Organization(s): MOE Key Laboratory of Fundamental Physical Quantities Measurement & Hubei Key Laboratory of Gravitation and Quantum Physics, PGMF and School of Physics, Huazhong University of Science and Technology, Wuhan, China
11:35-11:50	1526421：Microfabrication and Measurement of Rb-Ne Vapor Cell for Chip-Scale Atomic Clocks Author(s)：Yong Ruan, Yue Shi Organization(s): State Key Laboratory of Precision Measurement Technology and Instrument, Department of Precision
11:50-12:00	1527382：Microtextures Inversely Designed for Cassie-Baxter Wettability Author(s)：Y. Deng, J. G. Korvink Organization(s): Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), Chinese Academy of Sciences, Changchun 130033, China

➢ 微纳仿生制造分会场

分会场简介：微纳仿生制造方法、微纳仿生表界面科学与技术、微纳仿生系统

主　　席：陈华伟教授（北京航空航天大学）、王钻开教授（香港城市大学）

时　　间：2019 年 10 月 14 日上午　　**地　　点：**东湖厅

主持人：陈华伟教授（北京航空航天大学）	
08:00-08:20	 特邀报告：微纳米级昆虫仿生飞行系统的革新：机遇与挑战 报告人：刘浩 教授 单位：日本千叶大学
08:20-08:40	 特邀报告：从形似到神似：仿生感知研究 报告人：韩志武 教授 单位：吉林大学
08:40-09:00	 特邀报告：基于超亲水界面的仿生制造及其应用 报告人：史铁林 教授 单位：华中科技大学
09:00-09:20	 特邀报告：生物材料的强韧化机制研究 报告人：冯西桥 教授 单位：清华大学
09:20-09:40	 特邀报告：微纳仿生传感技术 报告人：刘俊 教授 单位：中北大学
09:40-10:00	 特邀报告：仿生跨尺度光功能结构与器件封装 报告人：汤勇 教授 单位：华南理工大学
10:00-10:10	**茶歇**
主持人：王钻开教授（香港城市大学）	
10:10-10:30	 特邀报告：壁虎的运动仿生：从生物研究到工程应用 报告人：戴振东 教授 单位：南京航空航天大学

10:30-10:50	 特邀报告：仿生拓扑机械系统 报告人：王钻开 教授 单位：香港城市大学
10:50-11:10	 特邀报告：基于微生物的微纳米机器人技术 报告人：蔡军 教授 单位：北京航空航天大学
11:10-11:20	1478414：A Color and Reflection Spectrum Tunable Flexible Structure Author(s)：Chen Kehan，Wang Shuai，Zhang Wenqiang, Cai Jun, Jia Ziyan and Feng Lin Organization(s): College of Engineering, China Agricultural University, Beijing, 100083, China
11:20-11:30	1527489：Regulation of Interfacial Stress for Bioinspired Fibrillar Adhesives Author(s)：Quan Liu, Di Tan, Fandong Meng, Zekun Shi, Sheng Liu, Longjian Xue Organization(s): School of Power and Mechanical Engineering, The Institute of Technological Sciences, WuhanUniversity, South Donghu Road 8, Wuhan, 430072, CHINA
11:30-11:40	1529269：A Bionic Microfluidic Chip to Provide A Fluid Microenvironment Comparable to Interstitial Flow for in Vitro Cell Culture and Alignment Author(s)：Laiqian DING, Chong LIU Organization(s): Key Laboratory for Micro/Nano Technology and System of Liaoning Province, Dalian University of Technology, Dalian, Liaoning, China
11:40-11:50	1508355：仿生智能结构材料设计制备与应用研究 Author(s)：杜学敏 Organization(s): 中国科学院深圳先进技术研究院

➢ 超表面透镜的设计、加工及应用分会场

分会场简介：1.超表面光学；2.平板透镜；3.纳米聚焦；4.超表面透镜的成像及像差；5.超表面透镜的加工制备；6.超表面透镜的应用。

主　　席：黄文浩教授（中国科学技术大学）、黄坤研究员（中国科学技术大学）

时　　间：2019 年 10 月 14 日上午　　**地　　点：** 三峡厅

主持人：黄文浩教授（中国科学技术大学）

08:00-08:15		特邀报告：超构表面成像研究 报告人：王漱明 副教授 单位：南京大学
08:15-08:30		特邀报告：Large NA And Achromatic Dielectric Metalens 报告人：俞叶峰 教授 单位：南京理工大学
08:30-08:45		特邀报告：基于悬链线光学的超表面大视场透镜 报告人：蒲明博 研究员 单位：中国科学院光电技术研究所
08:45-09:00		特邀报告：Silicon Nitride-Based Metasurface 报告人：陈钰杰 副教授 单位：中山大学
09:00-09:15		特邀报告：平面超临界透镜及其远场超衍射极限光场调控 报告人：秦飞 副教授 单位：暨南大学
09:15-09:30		特邀报告：Metasurfaces: Towards High Performance 3D Sensing 报告人：杨原牧 副教授 单位：清华大学
09:30-09:45		特邀报告：光学超构表面卡塞格林成像系统 报告人：李贵新 副教授 单位：南方科技大学
09:45-10:00		特邀报告：二氧化钛超构表面的设计和制备 报告人：肖淑敏 教授 单位：哈尔滨工业大学

10:00-10:10	**茶歇**
主持人：黄坤研究员（中国科学技术大学）	
10:10-10:25	 特邀报告：超表面材料在信息光学中的应用研究 报告人：郑国兴 教授 单位：武汉大学电子信息学院
10:25-10:40	 特邀报告：面向红外气体传感的超结构滤光探测阵列芯片 报告人：李向平 教授 单位：暨南大学
10:40-10:55	 特邀报告：超颖表面成像及波前调制研究 报告人：黄玲玲 教授 单位：北京理工大学
10:55-11:10	 特邀报告：线描轮廓加工：一种颠覆性跨尺度超表面结构制造工艺 报告人：段辉高 教授 单位：湖南大学
11:10-11:25	 特邀报告：微纳超构表面对近场的奇异调控 报告人：孙树林 副研究员 单位：复旦大学
11:25-11:40	 特邀报告：Polarization-Dependent Optical Response Using Subwavelength Structures 报告人：张磊 研究员 单位：西安交通大学
11:40-11:55	 特邀报告：基于高效介质超表面透镜实现偏振信息获取 报告人：郭忠义 教授 单位：合肥工业大学
11:55-12:05	1475053：Electrowetting of Optical Adhesive Liquid on Micro/Nanotextured Dielectric for Generating Shape-Controllable Lenses Author(s)：LI. Xiangmeng，SHAO. Jinyou，ZHU. Xijing Organization(s): Shanxi Provincial Key Laboratory of Advanced Manufacturing Technology, North University of China, Taiyuan 030051, CHINA Micro- and Nanotechnology Research Center，State Key Laboratory for Manufacturing Systems Engineering, Xi'an Jiaotong University, Xi'an, Shaanxi 710049, CHINA

➢ 射频/微波/太赫兹微纳器件与系统分会场

分会场简介：1. 射频/微波/太赫兹微纳器件的新原理、新材料与新结构；

2. 射频/微波/太赫兹微纳器件的设计方法、微/纳加工工艺、封装与测试技术；

3.射频/微波/太赫兹微纳器件的模块或系统级应用。

主　　席：高杨教授（西南科技大学）、杨晋玲研究员（中国科学院半导体研究所）

时　　间：2019 年 10 月 14 日上午　　**地　　点：** 汉南厅

主持人：高杨教授（西南科技大学）	
08:00-08:25	 特邀报告：基于压电氮化铝（ALN）薄膜材料的射频滤波器研究 报告人：孙成亮 教授 单位：武汉大学
08:25-08:50	 特邀报告：体声波磁电天线的解析模型与关键工艺 报告人：李君儒 CTO 单位：四川知著微纳科技有限公司
08:50-09:15	 特邀报告：体声波磁电天线的解析模型与关键工艺 报告人：邵磊 助理教授 单位：上海交通大学
09:15-09:40	 特邀报告：异构集成射频微系统研究进展和未来展望 报告人：黄旼 高级工程师 单位：中国电科 55 所
09:40-10:00	1524019：Analytical Drain-Current Model for RF Flexible Graphene Filed-Effect Author(s)：Yan Wang，Yu Lan，Yuehang Xu Organization(s): Microwave and millimeter-wave Technology(MMT) Lab University of Electronic Science and Technology of China，Chengdu,611731,China
10:00-10:10	**茶歇**
主持人：袁泉副研究员 （中国科学院半导体研究所）	
10:10-10:35	 特邀报告：A Novel Rf-MEMS Resonator with Multiple- Frequency Outputs 报告人：袁泉 副研究员 单位：中国科学院半导体研究所

10:35-11:00	 特邀报告：柔性微波器件技术研究 报告人：徐跃杭 教授 单位：电子科技大学
11:00-11:20	企业报告：Nanoscribe 双光子微纳 3D 打印技术 Author(s)：崔万银 Organization(s): 纳糯三维科技（上海）有限公司
11:20-11:35	1528314：Imaging of Multi-Ghz Dynamics In MEMS Resonators Author(s)：L. Shao，B. Peng，K.M. Hu，P.H. Song，W.M. Zhang Organization(s): University of Michigan-Shanghai Jiao Tong University Joint Institute, Shanghai Jiao Tong University, Shanghai, CHINA 2School of Mechanical Engineering, State Key Laboratory of Mechanical System and Vibration, Shanghai Jiao Tong University, Shanghai, CHINA

➢ 封装技术分会场

分会场简介：1.先进封装技术；2.封装材料；3.封装设计与仿真；4.封装测试

主　　席：田文超教授（西安电子科技大学）

时　　间：2019 年 10 月 14 日上午　　**地　　点：** 神龙厅

主持人：田文超教授 （电子科技大学）	
08:00-08:25	 特邀报告：面向 MEMS/传感器的柔性定制化封装技术 报告人：杨道国 教授 单位：桂林电子科技大学
08:25-08:50	 特邀报告：电子封装热机械可靠性评价中的实验方法 报告人：苏飞 副教授 单位：北京航空航天大学
08:50-09:15	 特邀报告：电子封装中的微纳连接技术及其在柔性电子中的应用 报告人：田艳红 教授 单位：哈尔滨工业大学
09:15-09:40	 特邀报告：先进封装 TSV 孔填充工艺与转接板技术 报告人：杨卓青 教授 单位：上海交通大学
09:40-10:00	 特邀报告：电子封装中的微观结构对宏观力学特性的影响 报告人：陈志文 副研究员 单位：武汉大学工业科学研究院
10:00-10:10	**茶歇**
主持人：杨道国教授 （桂林电子科技大学）	
10:10-10:30	企业报告：MEMS 工艺中的光刻胶选型 Author(s)：吉文婷 Organization(s):苏州锐材半导体有限公司
10:30-10:55	 特邀报告：Height Uniform Analysis of Wafer Gold Bump Electrodeposition Process 报告人：田文超 教授 单位：电子科技大学
10:55-11:20	 特邀报告：焊点尺寸对铜锡金属间化合物生成动力学的影响 报告人：刘影夏 预聘副教授 单位：北京理工大学

展板索引

Poster Session

ID	Author	Orangization	Title
1355929	李小飞	内蒙古工业大学 材料科学与工程学院，呼和浩特 010051	纳米 fe-Al/Cr3c2 复合涂层抗冲蚀磨损性能
1365041	Xiangyu Li	Faculty of Information Science and Technology, Ningbo University, Ningbo, Zhejiang, China	Harmonic Distortion Optimization for Sigma–Delta Modulators Based on TMR Sensors
1426296	K. Cheng	School of Mathematics and Physics, Yancheng Institute of Technology, Yancheng 224051, China	Effect of Heat Treatment on The Microstructure and Mechanical Properties of Electroless Nickel-Phosphorus Coatings
1437184	Wanting Rong	MEMS Center, Harbin Institute of Technology, Harbin 150001, China	Drag Reduction of Stable Biomimetic Superhydrophobic Steel Surface by Acid Etching Under an Oxygen-Sufficient Environment
1445027	J. J. Zhong	Department of Materials and Food, University of Electronic Science and Technology of China	Fabrication of Flexible Silver Nanowires Transparent Conductive Films Using Spraying Coating
1447696	尚瑛琦	中国电子科技集团公司第四十九研究所黑龙江哈尔滨 150001	基于多孔硅的微腔结构加工技术研究
1455016	顾雯雯	西南大学工程技术学院，重庆，中国	基于阻抗检测芯片的人体小梁网细胞受激响应监测
1455530	Z. Dong	School of Biological Science and Medical Engineering, Beihang University, Beijing, 100083, China	Wearable Flexible Nano-Transfection Device for On-Skin Gene Editing With CRISPR-Cas9
1455559	Z. Dong	School of Biological Science and Medical Engineering, Beihang University, Beijing, 100083, China	A Multiplexed Intracellular Probing (IP) Nano-Chip for Interrogation of Myo-Fibroblasts And Cardiomyocytes Gene In Cardiac Fibrosis
1455933	Cheng Zhou	State Key Laboratory of Precision Measuring Technology and Instruments, Tianjin University, Tianjin, CHINA	Smartphone Enabled Flexible Nanowires Array Gas Sensors Fabricated by Soft Lithography
1457438	Jianbing Meng	School of Mechanical Engineering, Shandong University of Technology, Zibo, Shandong, China	Superhydrophobic Structures On 6061 Aluminum Alloy Surfaces by Shot Blasting and Electrochemical Oxidation

ID	Author	Orangization	Title
1458417	Chunxiu Liu	State Key Laboratory of Transducer Technology, Institute of Electronics, CAS, Beijing, CHINA	Nanoparticles Enhanced Self-driven Microfludic Biosensor
1458539	Yuzhou Wu1 *	School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, 1037 Luoyu Road, 430074, WUHAN, CHINA	DNA Template Synthesis of Nano Devices
1458718	Xiaojuan Dong	School of Mechanical Engineering, Shandong University of Technology, Zibo, Shandong, CHINA	Effect of Continuous Minimum Quantity Lubrication with Ultrasonic Atomization in Turning of TC4
1461399	Yanru Zhao	The College of Mechanical and Power Engineering, Henan Polytechnic University, Jiaozuo, Henan, CHINA	Design and Control of a Piezoelectric-driven Microgripper Perceiving Displacement and Gripping Force
1461615	Y. Pan	College of Applied Sciences, Beijing University of Technology, Beijing 100124, China	The Nanostructure Array Fabricated by Three Beams Laser Interference Ablation on Ga0.1Co0.5ZnSe0.4 Films
1461671	D.W. Gao	College of Applied Sciences, Beijing University of Technology, Beijing 100124, China	Influence on Strcutrure and Optical Propeties of ZnS: Co Thin Films by Magnetic Field
1462638	JI Songxiang	Science and Technology on Electronic Test & Measurement Laboratory, North University of China1, Taiyuan, Shanxi, China	Design of Bionic Round Table Cilia MEMS Vector Hydrophone
1463220	Jing Wang	School of Mechanical and Electrical Engineering, Southwest Petroleum University, Chengdu 610500, PR China;	Two Types of Scale Effects of Axially Moving Nanobeams Under Internal Resonance Conditions
1464956	Runhua Wang	Shenzhen Graduate School of Peking University, Shenzhen, P. R. China	柔性、超灵敏的 SERS 衬底用于农药检测
1466865	Xinzhi Liu	State Key Laboratory of Precision Measurement Technology and Instruments, Department of Precision Instrument, Tsinghua University, Beijing, China	基于动态规划的复合微能源系统能量管理算法的优化方法
1467057	Changhua You	State Key Laboratory of Transducer Technology, Institute of Electronics Chinese Academy of Sciences (IECAS), Beijing, China	Closed-Loop Adjustable Shunt Current Intensity Control Circuit and System for Current Conduction Treatment of Epilepsy
1468412	张颖	上海大学，上海市应用数学和力学研究所，上海，中国	耦合微悬臂双梁传感器振动的基本特性
1469572	霍树春	精密测试技术及仪器国家重点实验室，天津大学，天津市 300072	基于高灵敏显微光谱的石墨烯连续薄膜形貌检测

ID	Author	Orangization	Title
1469787	Xiashuang Li	Research Institute of Micro and Nano Mechatronics System, Shaanxi University of Science &Technology, Xi'an, Shannxi Province, China	Sub-micron Rasterizing Data Matrix Code on Stainless Steel by Laser Marking for Identification of Small Parts
1469823	Siying Li	Graduate School at Shenzhen, Tsinghua University, Shenzhen, Guangdong, China	A MEMS scanning mirror actuated by a PZT film with large scan angles
1470930	冯骁斌	香港城市大学	微纳尺度 CoCrFeNiZrx 和 CoCrNiTi0.1 多主元合金力学性能和微点阵超材料
1471002	姚子琪	英蓝实验室，北京化工大学机电工程学院，北京市，朝阳区，中国	熔体静电纺丝直写精密复杂微纳组织工程支架的研究进展
1471063	ZHANG Pengfei	Key Laboratory of Instrumentation Science and Dynamic Measurement of Ministry of Education, North University of China, Taiyuan 030051, China	Design of Capacitive Acoustic Pressure Hydrophone Based on MEMS
1472131	Xing Liu	ShanghaiTech University, Shanghai, China	Sub 100 nm Period Metallic Nano-pillar Fabricated by X-ray Interference Lithography
1472364	SHEN Wei	Science and Technology on Electronic Test & Measurement Laboratory, North University of China, Taiyuan	Four beam piezoresistive turbulence sensor based on MEMS
1473150	Yuanyuan Zhang	School of Mechanics and Engineering, Southwest Jiaotong University, Chengdu, Sichuan, China;	Coupling effects of the couple stress and surface energy on large deflection of FG-CNTR nanobeams
1473953	Xinde Tang	Institute of Functional Materials, Shandong Jiaotong University, Jinan, Shandong, China	Hollow sandwich-structured N-doped carbon-silica-carbon nanocomposite anode materials for Li ion batteries
1474069	Dongjie Li	Institute of Mechatronic Control and Automatic Technology, Harbin University of Science and Technology, Harbin, Heilongjiang, CHINA	Simulation of Picking up Micro-Components Based on Electrochemistry
1474115	Yihang Wang	MEMS center, Harbin Institute of Technology, Harbin, Heilong Jiang Province, China	A Closed-Loop System Design of MEMS Digital Disk Resonator Gyroscope
1474222	Ahmed Fawzy	State Key Laboratory of Precision Measuring Technology and Instruments, Tianjin University, Tianjin 300072, China	Piezoelectric MEMS Micro-Speaker based on Scandium-Doped AlN Thin Film
1474327	Aihua Jing	School of Medical Technology and Engineering, Henan University of Science and Technology, Luoyang 471003	Three-Dimensional Holey-graphene Simultaneous Sensing in Biological Fluids

ID	Author	Orangization	Title
1474523	Min Qi	University of Chinese Academy of Sciences, Beijing, 100049, China	A high-temperature low-noise MEMS-based accelerometer readout circuit
1474637	Y. Zhong	National Institute of Metrology, Beijing, 100029, China	Low stress SiO2 film with optimized sidewall profile for vertical step coverage and wiring connection
1474657	Q. Zhong	National Institute of Metrology, Beijing, 100029, China	Electrical and Magnetic Properties of Ohmic Contacts of the Quantum Hall Devices
1474762	Yukun Liu	Tsinghua Shenzhen International Graduate School, Tsinghua University, Shenzhen, Guangdong, China	Formation of controllable shell thickness double emulsion droplets in 3D PDMS microfluidic devices
1475014	Chenye Li	Information Microsystem Institute, Beijing Information Science and Technology University, Beijing, 100101，China	Optimal design scheme of segmental transmission line for High Frequency Interconnection
1475079	Tingliang Tan	State Key Laboratory of Transducer Technology, Institute of Electronics Chinese Academy of Sciences (IECAS), Beijing, China	Application Study of Thermal Conductivity Detector Based on MEMS for Monitoring Dissolved Gases in Power Transformer
1475105	Jiapeng Li	School of Mechanical Engineering, Shandong University of Technology, Zibo 255049, China	Water distribution confined in the nanochannel: the impact of the thermal motion of silicon atoms
1475363	Furong Yao	College of Mechatronics Engineering &Collaborative Innovation Center of Suzhou Nano Science and Technology, Soochow University, Suzhou, Jiangsu, China	Effect of dielectric barrier discharge on surface properties of ceramics
1475380	吴子越	传感技术联合国家重点实验室，中国科学院电子学研究所，北京，中国	基于 MEMS 的多参数水质检测集成芯片及其便携式系统
1475416	Yamei Wang	School of Mechanical Engineering and Automation, Beihang University, Beijing	Flexible and Wearable Humidity Sensor Based on Graphene Oxide and Non-Woven Fabrics for Respiration Monitoring
1475803	Peishuai Song	Institute of Semiconductors, Chinese Academy of Sciences, Beijing, P. R. China	A Novel Manufacture Method for Piezoresistive MEMS Pressure Sensors Based on Temporary Bonding Technology
1475808	Yurong He	Institute of Semiconductors, Chinese Academy of Sciences, Beijing, P. R. China	Design and Simulation of a Modal Match MEMS Ring Gyroscope
1476213	Haoyu Gu	Institute of Electronic Engineering, China Academy of Engineering Physics, Mianyang, China	A MLP-Based De-noisng Method For MEMS Gyroscopes Inspired By Image De-noising

ID	Author	Orangization	Title
1476345	王鹏	数字制造装备与技术国家重点实验室，华中科技大学，武汉，湖北，中国	角分辨散射仪研制及其在纳米结构测量中的应用
1476360	Xinkang Hu	School of Mechano-Electronic Engineering, Xidian University, Xian 710071, China	Stereolithographic 3D Printing-Based Hierarchically Cellular. Lattices for High-performance Quasi-Solid Supercapacitor
1476568	Min MIAO	Information Microsystem Institute, Beijing Information Science and Technology University, Beijing, 100095, China	面向三维集成的铜制基板微流道散热关键技术
1476798	X.Q. Su	College of Applied Sciences, Beijing University of Technology, Beijing 100124, China	Investigation on Physical Properties of IGZO Thin Films under the Conditions of Mixing Oxygen and Argon
1476868	孟木子	MEMS 教育部重点实验室，东南大学，南京，江苏省，中国	基于 MEMS 多层双端固支薄膜梁的力学参数在线提取方法研究
1476869	汤泽宇	MEMS 教育部重点实验室，东南大学，南京，江苏省，中国	基于 PIC/MCC 方法的电感耦合等离子体仿真研究
1477064	Wenshuo Tan	State Key Laboratory of Transducer Technology, Institute of Electronics Chinese Academy of Sciences (IECAS),Beijing	Research on Closed-Loop System of Nerve Electrical Stimulation
1477187	Ye Kaixiu	College of Physical Science and Technology, Xinjiang University,Urumqi,Xinjiang,China	Temperature Effect on Young's Modulus of Surface Oxidized Silicon Nano-films
1477216	张段芹	郑州轻工业大学，机电工程学院，郑州，450002	抑制末端温升的微电热驱动器设计与性能分析
1477290	YANG Xi	State Key Laboratory of dynamic testing technology, North University of China, Taiyuan 030051, China	Design and Realization of High Sensitivity Composite MEMS Vector Hydrophone
1477453	X. Y. Zhang	Jiangsu Key Laboratory of 3D Printing Equipment and Manufacturing, School of NARI Electric and Automation, Nanjing Normal University, Nanjing, Jiangsu Province, CHINA	Experimental Study of Nano-Silver Ink Integrated Circuit Based on EHD Micro-nanoscale 3D Printing
1477544	X. Chi	Jiangsu Key Laboratory of 3D Printing Equipment and Manufacturing, School of NARI Electric and Automation, Nanjing Normal University, Nanjing, Jiangsu Province, CHINA	Fabrication and Experimental Research of Micro - and Nanometer Microfluidic Chip Based on Electronic Jet Printing
1477640	Meng Cai	Institute of Semiconductors, Chinese Academy of Sciences, Beijing, P. R. China	A Method for Calculating Structural Errors of Capacitive MEMS Devices

ID	Author	Orangization	Title
1477688	Ningkang Wang	Institute of Bionic Micro-Nano systems, Beihang University, Beijing, P.R. China	Development of a Hydrodynamic Pressure Sensor with Tunable Sensitivity Inspired by Fish Lateral Line
1477714	Hongyan Guo	Institute of Intelligent Machines, Chinese Academy of Sciences, Hefei, Anhui, CHINA	Fabrication of Multifunctional Fe3O4@mTiO2@Noble Metal Nanocomplex as SERS Substrate in an Automatic Microfluidic Device
1477742	Jingong Zhang	School of Microelectronics, University of Science and Technology of China (USTC), Hefei, 230026, China	Research on Readout System for Micro Wireless Pressure Sensor
1478218	Zhushan	State Key Laboratory of dynamic testing technology, North University of China, Taiyuan in Shanxi Province 030051	Design of MEMS vector hydrophone acquisition and storage system
1478343	LIU Guochang	Science and Technology on Electronic Test & Measurement Laboratory, North University of China, Taiyuan, Shanxi, China	Microstructure Process Design and Fabrication of MEMS Two-Dimensional Turbulence Sensor
1478466	QianKe qiang	Nanjing Electronic Devices Institute，Nanjing，210016，CHN	Research on Planarization Process of Sio2 Sacrificial Layer Basedon RF MEMS
1478493	Linjiao Ren	Department of Electric Information Engineering, Zhengzhou University of Light Industry, zhengzhou, Henan province, China)	Research on Quenching Carbon Dots by Different Aptamers
1478733	Liang Chen	College of Engineering and Technology, Southwest University, Chongqing, P. R. China	Design and Reliability Optimization for Torsion Beam of MOEMS Scanning Grating Mirror
1478743	Liang Chen	College of Engineering and Technology, Southwest University, Chongqing, P. R. China	MOEMS Scanning Grating Mirror based on Folded Torsion Beam with Fillet Corners
1478752	Hongchang Li	Institute of Bionic Micro-Nano systems, Beihang University, Beijing, P.R. China	Impact of Argon Addition to Reactive Ion Etching of 6H-Sic in SF6/O2
1478998	J. He	School of Mechanical Engineering, Xihua University, Chengdu, Sichuan, China	Piezoelectric Elliptical Disk Flexure Resonator with Low Anchor Loss
1479052	T. Chen	College of Mechanical Engineering, North China University of Science and Technology, Tangshan, Hebei, CHINA	The First-Principles Study of The Adsorption of Cun(N=2-4) Clusters on Graphene Doped With B
1479277	Rui Hao	School of Mechanical and Electrical Engineering, University of Electronic Science and Technology of China, Chengdu, Sichuan,	Stiffness Calculation Method of L-shaped MEMS Piezoelectric Beam

ID	Author	Orangization	Title
1479451	胡世炜	北京信息科技大学自动化学院，北京信息科技大学传感器重点实验室	基于石墨烯修饰玻碳电极上电聚合离子印迹膜用于水中痕量 Cd（II）的电化学检测
1479474	Kaicong Cao	School of Mechanical and Electrical Engineering, University of Electronic Science and Technology of China, Chengdu, Sichuan, CHINA	Construction of Rough Contact Model Between Silicon and Gold in Anodic Bonding
1480006	Pei Yu	Science and Technology on Electronic Test & Measurement Laboratory, North University of China, Taiyuan 030051, China	Research on Breast Ultrasound Tomography System Based on CMUT Linear Array
1480054	LIU Shi-jie	School of Astronautics, Harbin Institute of Technology, Harbin 150001, China	The Solution to the Problem of Stability Negative Pressure Ventilation in Russian Henhouses
1480077	Dongliang Chen	MEMS Center, Harbin Institute of Technology, Harbin, Heilongjiang, China	A Digital Calibration Method for Reducing the Parasitic Effect of a MEMS Accelerometer based on Harmonic Self-Test
1480690	孙红江	西安交通大学	Investigating tribological behaviors of ZIF-67 particles for oil lubrication
1480759	Qinwen Huang	National Key Laboratory of Science and Technology on Reliability Physics and Application Technology of Electrical Component, the 5th Electronics Research Institute of the Ministry of Industry and Information Technology, Guangzhou	Hermeticity Evaluation of MEMS wafer Packages by Raman spectroscopy
1480907	刘明	福州大学机械工程及自动化学院，福州，福建省，中国	利用微米划痕测试材料的表面力学性能
1480946	Risheng Lv	MEMS Center, Harbin Institute of Technology, Harbin 150001, China	A Triple-Axis Digital Interface ASIC for MEMS Vibratory Gyroscopes
1481014	Wenbo Zhang	MEMS center, Harbin Institute of Technology, Harbin, Heilong Jiang Province, China	A Study of The Influence of Time-Varying Phase Noise on The MEMS DRG Interface Circuit
1481288	Guoyi Kang	Department of Instrumental and Electrical Engineering, Xiamen University, Xiamen, Fujian, CHINA	Jet Mode Recognition of Electrohydrodynamic Direct-Writing Based on the Micro/Nano Electrospinning Current
1481392	Huatan Chen	Department of Instrumental and Electrical Engineering, Xiamen University, Xiamen, Fujian, CHINA	AC Power Design for Precise Electrohydrodynamic Direct-Write Micro-nano Structure
1481451	Zhaoyang Wang	College of Science, Minzu University of China, Beijing, China	Exploring Merit of Metamaterial-biosensor on Flexible Thin Film in Terahertz regime

ID	Author	Orangization	Title
1481815	Binpeng Zhan	ZJUI Institute, International Campus, Zhejiang University, Haining, 314400, China	High Precision Detection Circuit Design for Haircell Sensor
1481966	Xiaodong Xu	MEMS Center, Harbin Institute of Technology, Harbin 150001, China	Design of a Gyro Phase Control Loop with Adaptive Bandwidth
1482266	Kai-yuan Lai	School of Physics and electronics, Henan University, Kaifeng, Henan 475000, China	A New Rear-Illuminated 4H-Sic Photoconductive Switches with Aln Anti-Reflection Coating
1482451	Jiahan Huang	School of Mechatronics Engineering, Foshan University, Foshan, Guangdong, China	Design and Analysis of Photovoltaic/Electrostatic Hybrid Driving Mechanism and Its Application in Optically Controlled Microgripper
1482549	L.X. Liu	Department of Automation, Shanxi University, Taiyuan, Shanxi, P. R. China	微纳传感器/执行器
1482693	Li Qiang	MicroNano System Research Center, Taiyuan University of Technology, Taiyuan, Shanxi, People's Republic of China	A 3D Printed Stretchable Sensor Based on AgNWs & PDMS
1482712	朱柯霖	北京师范大学 核科学与技术学院,	纳米多孔硅复合结构热导率的研究
1482763	Chao Wang	School of Mechano-Electronic Engineering, Xidian University, Xi'an 710071, CHINA	Non-probabilistic Robust Optimization for MEMS Bistable Mechanism Based on Interval Analysis
1482857	盛胜	华中科技大学数字制造装备与技术国家重点实验室，武汉，430074	基于液晶调相型穆勒矩阵椭偏仪的系统设计
1483073	Wu Jie	Nanjing Electronic Devices Institute, Nanjing zhongshan road 524, China	The Research of 3D Metal Line Interconnect Technology In MEMS
1485489	Wei Feng	Centor of Advanced Sensor and Actuator, Institute of Electronic Engineering, China Academy of Engineering Physics, Mianyang, 621900, China	Design and Fabrication of Gear Change Mechanism Using Electrochemical Fabrication(EFAB)
1487409	仲丁元	苏州大学机器人和微系统研究中心	钛合金-玻璃阳极键合的工艺研究及界面机理分析
1494527	Hengzhen Feng	National Key Laboratory of Electro-Mechanics Engineering and Control, School of Mechatronical Engineering, Beijing Institute of Technology, Beijing, CHINA	Design, Process and Test of Energy Grooming Actuator Based on Corona Effect
1504638	Chong Wang	1MEMS Center, Harbin Institute of Technology, Harbin 150001, China	First-Principles Study of Thermoelectric Transmission Properties of BN Nanobelts
1505669	胡玉华	国基南方有限公司	等离子清洗技术在 MEMS 滤波器微组装工艺中的应用

ID	Author	Orangization	Title
1506630	L. L. Zhang	College of Information Science and Technology, Beijing University of Chemical Technology, Beijing 100029, China	Detection of Kappa Light Chain Protein in Human Urine by Surface Plasmon Resonance
1508358	Xuemin Du	Shenzhen Institutes of Advanced Technology (SIAT), Chinese Academy of Sciences (CAS)	Bioinspired Intelligent Soft Actuators
1508366	Xuemin Du	Shenzhen Institutes of Advanced Technology (SIAT), Chinese Academy of Sciences (CAS)	Bioinspired Intelligent Sensors and Actuators
1508396	陆清华	安徽工程大学机械与汽车工程学院,芜湖	金属薄板超声切割装置的设计与研究
1508487	Hai Wang	School of Mechanical and Automotive Engineering, Anhui Polytechnic University, Anhui, Wuhu,	A Hybrid Vibration Energy Harvester Based on Piezo-Electrostatic Mechanisms
1508491	Hai Wang	School of Mechanical and Automotive Engineering, Anhui Polytechnic University, Wuhu, China	Research on Control Strategy of Ultrasonic Cutting Robot
1513082	Zhicheng Zhang	Jiangsu Normal University，Xuzhou City，Jiangsu Province，CHINA	Chaotic Continuous Growth Model of Dragons Based on Ecological Assessment System
1516777	Yi-Qun Song	Key Laboratory of MEMS of the Ministry of Education, Southeast University, Nanjing 210096, China	A SVM-Based Reliability Analysis of an Electrostatically Actuated Switch
1521129	Bo Peng	State Key Laboratory of Mechanical System and Vibration, Shanghai Jiao Tong University, 800Dongchuan Road, Shanghai 200240, China	A Sensitivity Tunable Accelerometer Based on Mode Localization
1521213	Zhan Xianglin	College of Electronic Information and Automation, Civil Aviation University of China, Tianjin, CHINA	Automatic Classification of CFRP Defect Types Based on One-dimensional Convolutional Neural Networks
1522144	王帅	北京理工大学，先进结构技术研究院，北京 100081	液滴在含楔状亲水区表面上输运及汇聚行为的研究
1523145	彭志龙	北京理工大学 先进结构技术研究院，北京，中国	壁虎类生物微观黏附机制的仿生研究
1524510	Qian Li	School of Power and Mechanical Engineering, The Institute of Technological Science, Wuhan University, South Donghu Road 8, 430072, Wuhan, China	Bio-inspired Smart Surface with Droplet Adhesion Switchable between Isotropic and Anisotropic
1525016	Cheng Li	School of Instrument Science & Engineering, Southeast University, Nanjing 210096, P.R. China	Research on Mode-matching System for MEMS Gyroscope Utilizing Digital Excitation-calibration Technique

ID	Author	Orangization	Title
1525030	Jun Sheng	College of Mechatronics Engineering &Collaborative Innovation Center of Suzhou Nano Science and Technology, Soochow University, Suzhou, Jiangsu, China	Design and Verification of Humidity Sensor Based on Magnesium Oxide Micro-arc Oxidation Film Layer
1525039	Yin Yao	Institute of Advanced Structure Technology, Beijing Institute of Technology, Beijing 100081, China	Theoretical and Numerical Researches of The Surface/Interface Effects in Nanomaterials
1525797	Fang Sun	Key Laboratory of Radiation Beam Technology and Materials Modification of Ministry of Education, College of Nuclear Science and Technology, Beijing Normal University	Reduced Graphene Oxide Wrapped Ultra-Thin Silicon Nanowires for Lithium-Ion Battery Anodes
1525804	Fan Yang	Research Center of Laser Fusion, China Academy of Engineering Physics, Mianyang 621900, PR China	Growth of Porous Tio2 Composites with Abundant Oxygen Vacancies by Atomic Layer Deposition
1526261	Hengzhen Feng	National Key Laboratory of Electro-Mechanics Engineering and Control, School of Mechatronical Engineering, Beijing Institute of Technology, Beijing	Research on Design and Packaging Technology of a High-precision Micro-Actuator
1526287	Mingzhi Wang	School of Mechanical Engineering, Northwestern Polytechnical University, 127 West Youyi Road, Xi'an, Shaanxi 710072	Characterization of Plastic Constitutive Parameters of Metal Materials Using Indentation Experiment and Statistical Bayesian Inference Approach
1526401	Yan Kong	Key Laboratory of Eco-textiles, Ministry of Education, Jiangnan University, Wuxi	Preparation of Fibroin Membrane with Different Topologies and Its Effect on Neuronal Cell Growth
1526571	Bi Fu	Shenzhen Key Laboratory of Nanobiomechanics, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen 518055, China	Probing of Ionic Transport Properties in Electrochemical Energy Storage System by Strain-Based Scanning Probe Microscopy
1526802	王兆龙	苏州大学	A Numerical Study of Droplet Splitting Using Different Spacers in EWOD Device
1526895	Xuebin Lu	Software and Microelectronics School, Harbin University of Science and Technology, Harbin, Heilongjiang Province, China	Influence of Doping Concentration on Piezoresistive and Electrical Trimming Characteristics of Polysilicon Nanofilm
1526914	邓昌邦	西南交通大学 牵引动力国家重点实验室 摩擦学研究所，四川 成都 610031	Ph 和 H2O2 对钛合金化学机械抛光性能研究

ID	Author	Orangization	Title
1526945	Tao Zhang	Tianjin Medical University, No. 22 Qixiangtai Road, Heping District, Tianjin 300070	Ph-Responsive Nanoparticles Based on Marine Polysaccharide for Co-Delivery of Celecoxib and Doxorubicin to Suppress Breast Cancer Growth and Metastasis
1527105	Minghui Tu	College of Mechatronics Engineering &Collaborative Innovation Center of Suzhou Nano Science and Technology, Soochow University, Suzhou, Jiangsu	Study on the Bonding Method of PtW Wire and Ceramic-based Au Film
1527185	Ming Liu	Institute of Advanced Structure Technology, Beijing Institute of Technology, Beijing, 100081, China	Dynamic Behavior of a droplet in motion on Functional Surface
1527299	Yu Feng	School of Instrument Science & Engineering, Southeast University, Nanjing 210096, P.R. China	Research on Key Techniques of Insect Take-Off Control Based on Electrical Stimulation
1527501	Shiwei Lin	State Key Laboratory of Marine Resource Utilization in South China Sea, Hainan University, Haikou 570228, PR CHINA	High-Performance Sensors Based on Organic Electrochemical Transistors
1527637	Guilian Wang	School of Electronic and Electrical Engineering, Shanghai University of Engineering Science, 333 Longteng Road, Shanghai 201620, People's Republic of China	Thermal Performance Enhancement in a Microchannel with Truncated Rib on Sidewall
1527644	Yu Zhu	School of Optical and Electronic Information, Huazhong University of Science and Technology, Wuhan, Hubei Province, China	Modulation of Transport Properties of Graphene-CNT Contact Through Gate Field
1527666	Xiaoyong Gao	School of Instrument Science & Engineering, Southeast University, Nanjing 210096, P.R. China	Study on a Micromachined Z-axis Tunneling Magnetoresistive Accelerometer based on Torsional structure
1527692	Kai Gao	College of Intelligence Science and Engineering, National University of Defense Technology, Changsha, China	Design, Analysis and Testing of Three-Antinode Nesting Ring Gyroscope
1527694	Chao Han	State Key Laboratory for Manufacturing Systems Engineering, Xi'an Jiaotong University, Xi'an, Shaanxi, China	Research on Processing Technology of Quartz
1527701	武韩强	西南交通大学 牵引动力国家重点实验室 摩擦学研究所，四川 成都 610031	AISI 52100 轴承钢的高效化学机械抛光工艺研究
1527709	宋凤民	重庆大学新型微纳器件与系统重点学科实验室，重庆	无源无线冲击传感器节点设计

ID	Author	Orangization	Title
1527757	Lei Li1,2*	1HLJ Province Key Laboratories of senior-education for Electronic Engineering, Heilongjiang University, Harbin, 150080, China	Biomemristic Behavior for Water-Soluble Chitosan Blended with Graghene Quantum Dots Nanocomposite
1527768	Qi Shao	Ultra Precision Machining Center, Zhejiang University of Technology, Hangzhou 310014, Zhejiang, China	Effects of Shear Thickening Polishing Parameters on The Curved Surface Roughness of 20crni2mo Workpiece
1528228	刘世杰	哈尔滨工业大学 航天学院 微电子科学与技术系	光刻工艺的现状与发展
1528390	Lei Jiu	College of Mechatronics Engineering &Collaborative Innovation Center of Suzhou Nano Science and Technology, Soochow University, Suzhou, Jiangsu, China	Effect of Sealing Treatment on Voltage Resistance and Thermal Conductivity of Micro-Arc Alumina Substrate for High Power LED
1528434	Zhaoyang Guo	Tianjin Key Laboratory on Technologies Enabling Development of Clinical Therapeutics and Diagnostics (Theranostics), School of Pharmacy, Tianjin Medical University, Tianjin, People's Republic of China	Influence of Structural Characteristics of Auxiliary Templates on The Morphology Structures of Dendritic Large-Pore Mesoporous Silica Nanoparticles
1528479	De Gong	School of Mechanical Engineering and Automation, Beihang University	Recent Developments in Micro-/Nanorobots Based on Microorganisms
1528548	Sipei Zhang	School of Pharmacy, Tianjin Key Laboratory on Technologies Enabling Development of Clinical Therapeutics and Diagnostics (Theranostics), Tianjin Medical University, Tianjin 300070, China	Ph And Redox Dual-Responsive Nanoparticles Based on Disulfide-Containing Poly(B-Amino Ester) for Combining Chemotherapy and COX-2 Inhibitor to Overcome Drug Resistance in Breast Cancer
1528577	Na. Li	Key Laboratory of Electronic Equipment Structure Design, Ministry of Education, Xidian University, Xi'an, Shannxi, CHINA	Design of Broadband Spiral Nanoantenna for Solar Energy Harvesting
1528588	Wei Wang	Jiangsu Key Laboratory of Advanced Metallic Materials, School of Materials Science and Engineering, Southeast University, Nanjing 211189, P. R. China	Fabrication of All-Dimensional Superhydrophobic Concrete With Enhanced Waterproof Ability and Freeze-Thaw Resistance

ID	Author	Orangization	Title
1528673	Dong Changchun	School of Software and Microelectronics, Harbin University of Science & Technology, Harbin, Heilongjiang, China	A Distributed Interpolative Sigma-Delta Interface for Fluxgate Sensor
1528766	Lei Li1,2*	HLJ Province Key Laboratories of senior-education for Electronic Engineering, Heilongjiang University, Harbin, 150080	Graphene Oxide: Graphene Quantum Dot Nanocomposites for Better Memristic Switching Behaviors
1528796	Wancheng Gu	Jiangsu Key Laboratory of Advanced Metallic Materials, School of Materials Science and Engineering, Southeast University, Nanjing	Water-Based Robust Transparent Superamphiphobic Coatings for Resistance to Condensation, Frosting, Icing, and Fouling
1528823	Min Xiao	College of Liberal Arts and Sciences, National University of Defense Technology, Changsha, Hunan 410073	High Sensitivity Graphene Gas Sensor Based on an Optical Microfiber Coupler Combined Sagnac Loop
1528880	Huang Fuxiang	MEMS Center, Harbin Institute of Technology, Harbin, Heilongjiang 150001, P. R. China	Stability Analysis in Driving mode of MEMS Gyroscope
1529000	Zhichao Song	Institute of Science and Technology for Optoelectronic Information, Yantai University, Yantai 264005, China	Highly Sensitive Gas Sensor Based on 3D Flower-Like MoS2-ZnO Micro/nanospheres Array
1529005	Jiawei Jin	College of Liberal Arts and Sciences, National University of Defense Technology, Changsha, Hunan 410072, China	Hydrothermal Synthesis of Copper Titanate And Iron Titanate Nanospheres for Enhanced Gas Sensing Applications
1529095	Ye Zhang	College of Liberal Arts and Sciences, National University of Defense Technology, Changsha 410073, PR China	Synthesis of Hierarchical Hollow Sodium Titanate Microspheres and Their Application For Selective Removal Of Organic Dyes
1529140	Xu Jun	School of automation, Harbin University of Science and Technology，Harbin，150080	Analysis of Thermal Sensitivity of Quartz Tuning Fork Resonator
1529364	Lin Liu	Key Laboratory of Radiation Beam Technology and Materials Modification of the Ministry of Education, College of Nuclear Science and Technology, Beijing Normal University, Beijing	The Electrical Behavior and Sensing Property of CNT/PDMS Composite
1529515	Yidi Zhou	School of Mechanical Engineering, Hebei University of Technology, Tianjin 300132, China	3D Micromanipulation Based on Tunable Standing Micro-Bubbles

ID	Author	Orangization	Title
1529644	Jing Wu	The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University, Harbin, China	The Simulation, Fabrication Technology and Characteristic Research of Micro-Pressure Sensor with Trapezoidal Beam-Membrane (TBM)
1529657	Mingyuan Ren	School of Software and Microelectronics, Harbin University of Science and Technology, Harbin, Heilongjiang Province	Low Noise Interface ASIC of Micro Gyroscope with Ball-disc Rotor
1529671	Ying Wang	The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University, Harbin, China.	Fabrication Technology and Characteristics Research of Three-Axis Acceleration Sensor with Double L-shaped Beam
1529681	Yuanyuan Qi	The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University, Harbin, China.	Fabrication Technology and Characteristics Research of 2D Magnetic Field Sensor based on Giant Magnetic Resistance (GMR)
1529717	Guoxu Zheng	School of software and microelectronics Harbin University of Science and Technology, Harbin 150080, P. R. China	MOFs derived NiO/Co3O4 as anode for lithium ion battery
1529874	Ying Han	Department of Mechanical Engineering, City University of Hong Kong, Hong Kong, China	Mechanical properties of freestanding monolayer MoS2
1529944	张腾蛟	微电子科学与技术系，航天学院，哈尔滨工业大学，黑龙江省，中国	在仿生超疏水荷叶表面制备亲水带对减阻性能的影响
1530082	Zengyong Chu	College of Liberal Arts and Sciences, National University of Defense Technology, Changsha 410073, China	Bio-inspired Hierarchical Reduced Graphene Oxide Ridges for Flexible Sensors, Solvent Actuators and Microdroplet Manipulators
1530804	Huiling Gai	The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University, Harbin, China.	Effect of Oxygen Concentration on Li-doped ZnO Based Resistive Switching Memory Devices by Magnetron Sputtering Method
1530857	Anyi Yuan	The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University, Harbin, China.	Effect of Piezoelectric Layer Series Connection on Characteristics of Energy Harvester with Multi-frequency Points
1530890	Susu Li	The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University, Harbin, China.	Characteristic Research of Space Magnetic Field Vector Sensor
1530894	Weiwei Liu	The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University, Harbin	Characteristics Research of Angle Sensor based on Silicon Magnetic-Sensitive Transistors

ID	Author	Orangization	Title
1531238	Jiandong Hao	The Key Laboratory of Electronics Engineering, College of Heilongjiang Province, Heilongjiang University, Harbin, China	Characteristics Research of a Composite Magnetic Field Sensor Based on Giant Magnetoresistances
1531861	Wenchao Tian	School of Electro-Mechanical Engineering, Xidian University, Xi'an, Shaanxi, China	The Study of MEMS Gas Sensor Based on Graphene for Adsorbing CO and CO2
1531995	Chunpeng Ai	Key Laboratory of Electronics Engineering College of Heilongjiang Province, Heilongjiang University, Harbin, Heilongjiang Province, CHINA	Characteristic Research of High Sensitivity Acceleration Sensor Based on Piezoelectric MOSFET
1533089	宋孝宗	兰州理工大学 机电工程学院，甘肃 兰州 730050	喷嘴型腔对光耦合胶体射流抛光能力的影响（光学精密工程已录用）
1533495	Yinghui Wu	henzhen University, Key Laboratory of Optoelectronics Devices and Systems of Education Ministry, College of Optoelectronic Engineering, Shenzhen 518060, China.	Atomic Force Microscopy Applied to Photovoltaic Materials and Solar Cells
1533959	Xiangqian Jiang	MEMS Center, Harbin Institute of Technology, Harbin 150001, China	The Excellent Thermoelectric Properties of Controled Carbon-Doped Content Boron Nitride Nanotubes and Bismuth Telluride Nanocomposites Film
1534667	李明林	机械工程及自动化学院，福州大学，福州，福建，中国	剪切行为诱发石墨烯褶皱的分子动力学模拟
1539113	L.L. Verevkin	Zaporizhzhya State Engineering Academy, Soborny Ave., 226, Zaporizhzhya, Ukraine, 69000	Investigated Electrical Properties of the System Zno: Al/Sio2/Porsi/Si
1540118	Jinghui Fan	Institute of System Engineering, China Academy of Engineering Physics, Sichuan 621999, China	Effect of Different Size of Pbwo4 Particles On EPDM Composite For Gamma-Ray Shielding
1543419	朱成秀	苏州大学 轨道交通学院车辆工程系，江苏苏州 215131	硅纳米片的非线性准连续理论模型及其弯曲和振动分析
1543978	杨浩	上海交通大学生物医学工程学院纳米生物医学研究中心	基于悬浮芯片的循环肿瘤 DNA 的多指标超灵敏检测
1545103	Yunfei Guo	School of Biomedical Engineering, Shanghai Jiao Tong University	A Multiplex miRNAs Digital PCR Detection Method Based on LCR
1545549	Jingwei Yi	a. School of Biomedical Engineering, Med-X Research Institute, Shanghai Jiao Tong University, Shanghai 200030, PR China	A Spherical Polyacrylic Acid Brushes-Enzyme (SP-AKP) For Signal Amplification in Microdroplet-Based Digital Detection
1557580	张展铭	东北林业大学土木工程学院，黑龙江哈尔滨 150040	纳米蒙脱土改性沥青的自愈性能分析

ID	Author	Orangization	Title
1573494	钟伦超	清华大学深圳国际研究生院，广东 深圳，518000	空气动力辅助离子源控制及优化研究
1578560	Hui Huang	State Key Laboratory of Oncogenes and Related Genes, Shanghai Cancer Institute, Renji Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai 200032, People's Republic of China.	Phase-Transitional Nanoparticles with GSH-responsive Pt(IV) Prodrugs and Hybrid Lipid-Polymer Shell for Precise Theranostics of Ovarian Cancer
1598998	H.Y. Yi	College of Chemistry and Material Science, Shanghai Normal University, Shanghai, China	Bi@AuPt nanozymes for multi-functional cancer therapy and multi-model imaging
1602782	侯雪峰	上海中医药大学，中药学院药剂教研室	基于微流控芯片和敞开式离子源集成系统快速分析研究
1619654	王春堯	同济大学材料科学与工程学院	Multifunctional nanoparticles loaded in self-healing hydrogel to exert synergistic function in biomedical field
1621538	陈景瑶	同济大学|东方医院	Surface functionalized Magnetic-fluorescent Multifunctional Nanomaterials for Detection of Circulating Tumor Cells
1623988	吴胜明	同济大学医学院生物医学工程与纳米科学研究所，上海东方医院转化纳米医学研究所	正电磁珠捕获结直肠癌患者 CTC
1624286	张国成	电子科技大学|机器人中心	The Study of The Wrinkles of Hexagonal Boron-Nitride Flake after the Annealing
1624365	冯可	大连科技学院	微型电场传感器原理及制备工艺
1624469	李如月	福州大学	一种产生 NO 的 pH 敏感脂质体的制备及其抗肿瘤研究
1630054	赵江慧	北京航空航天大学	用于微型化双光子显微镜的超表面物镜设计
1700002	江一波	深圳市人民医院 生物医学工程研究院	New self-healing temperature control materials for biological 3D printing

会场地址

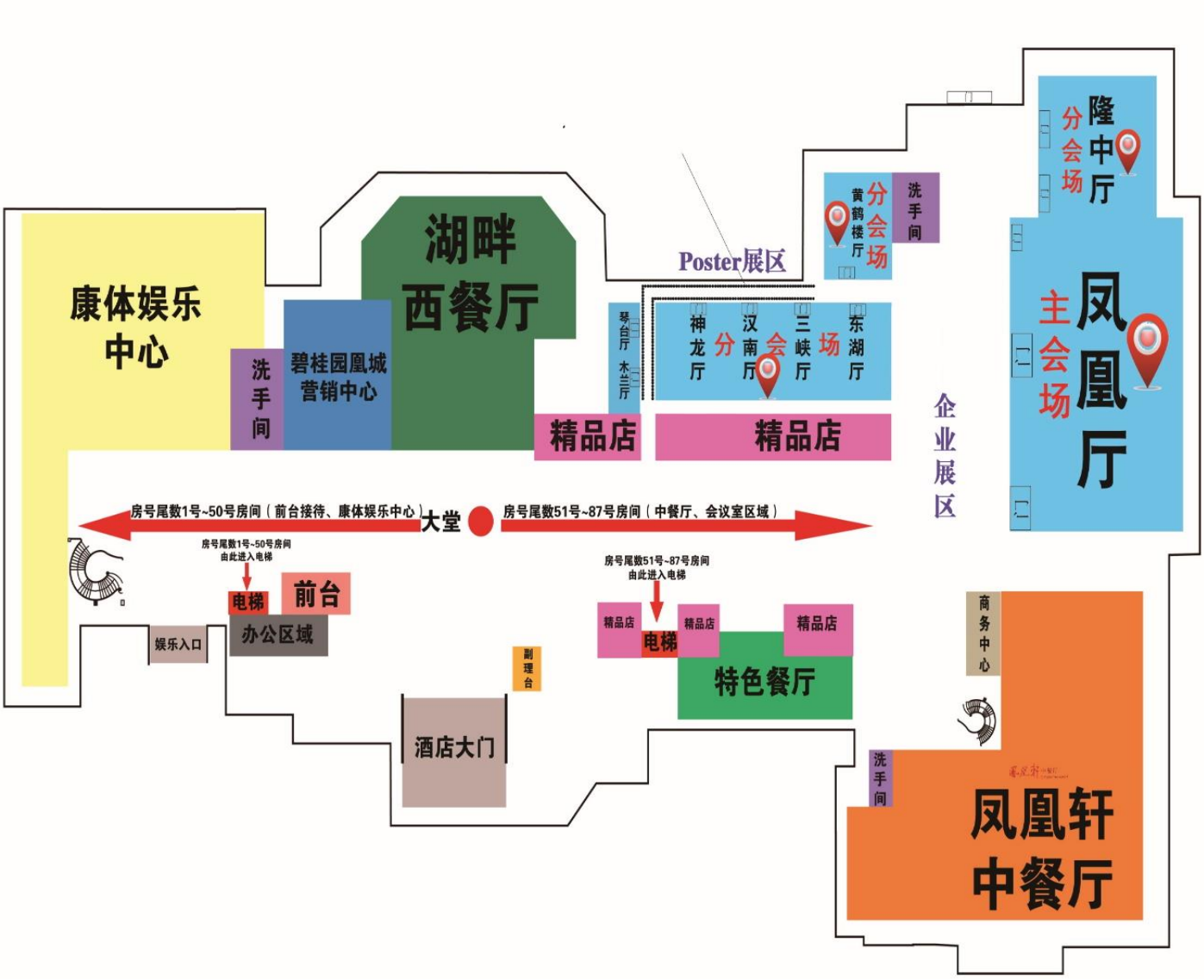
Venue Address

会场：武汉市碧桂园凤凰酒店

地址：武汉市汉南区马影河大道特一号

会场安排

Venue Overall Plan



交通指南

Traffice Guidance

酒店名称：武汉市碧桂园凤凰酒店
酒店地址：武汉市汉南区马影河大道特一号
酒店电话：027-50488888

一、驾车

- 汉口方向自驾车：
  →月湖桥→江城大道→上武监高速→”汉南”出口下(全程高速不收费) →下高速第一个路口左转（有指示牌）到酒店
- 武昌方向自驾车：
  →三环线→白沙洲大桥或鹦鹉洲大桥→江城大道出口处下→上武监高速→”汉南”出口下(全程高速不收费) →高速第一个路口左转（有指示牌）到酒店

二、公共交通

- 武汉火车站：地铁 4 号线→钟家村站内换乘地铁 6 号线→江城大道 D 出口→273 公交→马影河大道武汉碧桂园酒店
- 天河机场：地铁 2 号线→常青花园站内换乘地铁 6 号线→江城大道 D 出口→273 公交→马影河大道武汉碧桂园酒店
- 武昌火车站：地铁 4 号线→钟家村站内换乘地铁 6 号线→江城大道 D 出口→273 公交→马影河大道武汉碧桂园酒店
- 汉口火车站：地铁 2 号线→江汉路站内换乘地铁 6 号线→江城大道 D 出口→273 公交→马影河大道武汉碧桂园酒店

会务组联系方式

Conference Service Hot Line

总 负 责	刘　颖：15300022730
宾馆住宿	汪海花：13980540788
交费开票	张佳惠：13521268028
展 览 会	张　鹏：13701223419
专家接送	尹海华：13717838339
论　　文	李　娟：13436600498

中国微米纳米技术学会秘书处办公室

联系方式：

地　　址：清华大学精密仪器系

电　　话：010-62772108 010-62796707

传　　真：010-62796707

地　　址：中国北京清华大学精仪系 3301 室

学会官网：www.csmnt.org.cn

年会官网：http://annual2019.csmnt.org.cn

微　　博：http://e.weibo.com/csmnt123.

QQ 群：197263718

会议承办方（武汉大学）联系方式：

联系人：彭茜

地　址：武汉市武昌区武汉大学工学部雅各楼

电　话：13871252250

邮　箱：pengqian_an_lia@whu.edu.cn

了解更多技术信息，请扫描二维码：

微信二维码

微信号：CSMNT3301

2019 会议网站

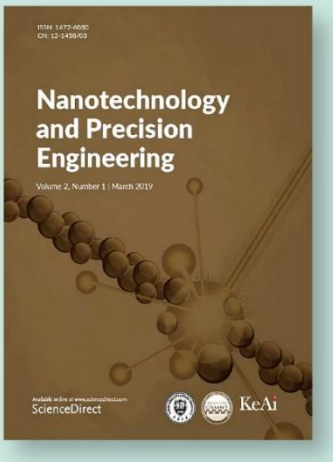
ISSN 1672-6030 (Print)
ISSN 2589-5540 (Electronic)
CN 12-1458/O3

Nanotechnology and Precision Engineering

Indexed by:DOAJ, SCOPUS, CSCD (Core),etc.

NPE will publish four issues per volume/year. NPE publishes original research articles, reviews, communications and discussions that focus on, but are not limited to, the following areas:

- Micro/Nano Devices, Sensors and Actuators
- Micro– and Nanoscale Fabrication
- MEMS/NEMS
- Micro/Nano Fluidics
- Micro/Nano Optics
- Micro/Nanotechnology for Biomedical Applications
- Micro– and Nano Characterization and Metrology
- Flexible Electronics
- Advanced Materials and Their Interface with Micro/Nanotechnology
- Precision Instruments
- Precision Engineering
- Industrial, Frontier and Future Trends for NPE



Author Benefits

Open Access for Free.
ScienceDirect Online Publication.
English Polishing Service for Free.
Rapid Peer Review and Short Publication Period .

Tel: 86-22-27892181 E-mail: nanope@tju.edu.cn

Welcome to Submit via ScholarOne Manuscripts Handling System
https://mc03.manuscriptcentral.com/npe

摩方精密
BMF Precision

微纳3D打印先行者和领导者

A LEADING MICRO 3D PRINTING SYSTEM

深圳摩方材料科技有限公司（BMF Material Technology Inc） 是全球微纳尺度 3D 打印技术及颠覆性精密加工能力解决方案提供商。专注于精密器件免除模具一次成型能力的研发，提供制造复杂三维微纳结构技术解决方案，同时，可结合不同材料及工艺，实现终端产品高效、低成本批量化生产及销售。

客户案例：

南京大学 NANJING UNIVERSITY
CityU 30 香港城市大學 City University of Hong Kong
Johnson & Johnson 强生
中国科学院
清华大学 Tsinghua University
西北工业大学 NORTHWESTERN POLYTECHNICAL UNIVERSITY
北京航空航天大学 BEIHANG UNIVERSITY
湖南大学 HUNAN UNIVERSITY

秉承将 3D 打印转变为真正的精密成型及直接制造的理念，nanoArch ® In 系列工业级 3D 打印系统为超精密增材制造量身定做。全球领先的超高打印精度（2um ~ 50um），超精密的加工公差控制能力（+/- 5um ~ +/- 25um），使得 nanoArch ® IN 打印系统可直接成型精密塑料件，无需再经过抛光、喷涂等后处理工艺。nanoArch ® IN 打印系统可为客户提供免模具的超高精度快速打样验证，小批量的精密塑料零件加工。

nanoArch 系列设备采用面投影微立体光刻（PμLSE: Projection Micro Litho Stereo Exposure）技术，是可以实现超高打印精度、高公差加工能力的 3D 打印系统。PμLSE 技术使用高精度紫外光刻投影系统，将需打印模型分层投影至树脂液面，快速微立体成型，从数字模型直接加工立体复杂工业样件，完成样件的制作。该技术具有成型效率高、打印精度高等突出优势，被认为是目前最具有前景的微尺度加工技术之一。

作为超高精度 3D 打印先行者和领导者，在三维复杂结构微加工领域，BMF Material 团队拥有超过二十年的科研及工程实践经验。针对客户在新产品开发中可能出现的工艺和材料难题，我们将持续提供简易高效的技术支持方案。

www.bmftec.cn
+86-755-26600689
bmf@bmftec.cn
深圳市龙华新区五和大道北锦绣科学园8栋东边五楼

沈阳科晶自动化设备有限公司
Shenyang Kejing Auto-instrument Co.Ltd

关于我们
About us

沈阳科晶自动化设备有限公司是由毕业于美国麻省理工学院的江晓平博士于2000年5月创建。时至今日，沈阳科晶已成为国内知名固体材料微观分析设备制造商。沈阳科晶立足国内市场实际情况，以提供最为实用的产品为己任。一直致力于高等院校、研究所、生产企业的科研服务，已经拥有涵盖材料切割、研磨、抛光、涂膜、镀膜、混合、压轧、烧结、分析等领域以及相关耗材的上百种产品，可以满足晶体、陶瓷、玻璃、岩相、矿样、金属材料、耐火材料、复合材料的制备分析的全套需要。


外圆切割机

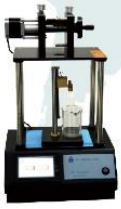

金刚石线切割机


研磨抛光机


金属熔炼炉


管式/箱式炉(200-1800°C)


旋转涂膜机/匀胶机


提拉涂膜机


静电纺丝机


等离子清洗机


磁控溅射镀膜仪

咨询热线:024-23826163转805,812,825

销售热线:18624331856,18624331865,18624331992

官方网站:www.sykejing.com　官方邮箱:kejing@sykejing.com

公司地址:沈阳市浑南新区学风路26-2-7号5门 精密仪器工业园

《微信公众号》

Think big. Print nano.

展位：16号

德国Nanoscribe公司作为纳米，微米和宏观尺度3D打印市场领军者，其系列3D打印设备在保持基于双光子聚合技术的超高精度3D打印的同时具备了高度自动化，高度易用性的特点，使得多个高精尖领域的微纳米精度的增材加工可以轻松的实现，拓展了人类精密加工的应用范围。

Photonic Professional GT2是目前世界上公认的打印精度最高的3D打印系统，在研究领域中得到了广泛的应用。而全新推出的Quantum X更是世界上第一个基于双光子灰度光刻(2GL®)用于折射和衍射微光学的工业级打印系统。现在全球前十的顶尖大学中有多所大学正在使用Nanoscribe 3D打印机，这些大学包含哈佛大学、加州理工学院、牛津大学，伦敦帝国学院和苏黎世联邦理工学院等等。

在2018年，Nanoscribe在上海成立了分公司-纳糯三维科技（上海）有限公司，以便更好的服务于中国的科研单位以及高科技企业，并将服务辐射到整个亚太地区的其他国家。

纳糯三维科技（上海）有限公司
崔万银博士
Phone: 0 21 - 2082 5547
Cell: 136 1162 5195
www.nanoscribe.com

最小横向打印线宽： 160nm
最小表面粗糙度： ≤20nm

最佳分辨率：400nm
最大打印体积：100mm³

PHENOMSCIENTIFIC
飞 纳 电 镜

飞纳电镜
展位号
2

荷兰飞纳台式场发射扫描电镜

- 最高放大 500,000 倍
- 分辨率优于 2.5nm
- 内置全自动真空锁，15 秒抽真空
- 实时地图导航，全面样品跟踪
- 耦合式电子光路设计
- 无需喷金直接观察不导电样品
- 台式设计，完全防震
- 内置磁屏蔽系统
- 场发射扫描电镜能谱一体机
- 售后无忧：电子光路免维护

2018 年， 荷兰飞纳公司推出采用肖特基场发射电子源，集背散射电子成像、二次电子成像和能谱分析功能于一体的台式场发射扫描电镜能谱一体机 Phenom LE。高亮度肖特基场发射电子源，使用户可以轻松获得高分辨率图像。Phenom LE 低电压成像优势明显，可减轻电子束对样品的损伤和穿透，最大程度还原样品真实形貌。

咨询电话：400 857 8882

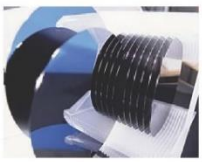
www.phenom-china.com

苏州锐材半导体有限公司

Suzhou Research Semiconductor Co., Ltd

硅片	特殊衬底	光刻胶	委托加工	超净耗材	器械与工具
原厂正片	石英片	BCB	加工内容： 光刻、刻蚀、蒸镀、溅射、键合、氧化、外延生长、减薄、切割、量测	试剂瓶	划片刀
测试片	ITO 玻璃片	光敏聚酰亚胺		棉签	硅片单片盒
Dummy 片	BF33 玻璃片	宽带厚胶		无尘纸	硅片盒
FZ 片（进口）	普通玻璃片	g/i line 薄胶		无尘布	硅片镊子
氧化片	AlN 陶瓷片	纳米压印胶		头套	硅片花篮
外延片	锗片	光固化胶		手套	氮气柜
SOI	砷化镓片	彩色光刻胶		口罩	
其他特殊硅片	蓝宝石片	电子束光刻胶	**光刻胶配套试剂**		

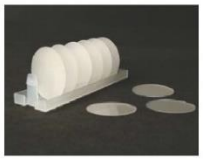
原厂正片



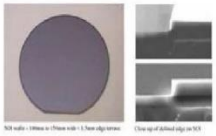
FZ 硅片

玻璃片

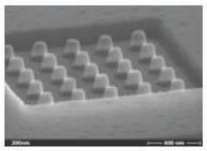
石英片



陶瓷片



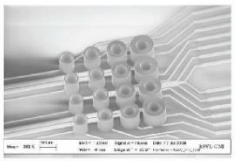
SOI



200nm dots

200nm lines

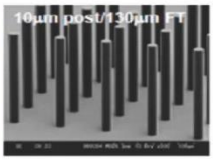
纳米压印工艺



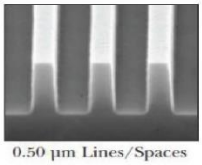
SU-8

LOL 2000 on Si at 200 °C/ 5 min. with 5.0 micron SPR950

双层胶



厚胶工艺



薄胶工艺

电话 ：0512-62995285，177 0613 0801（微信） QQ:1519849861

邮箱：sales@resemi.com 网址：www.resemi.com

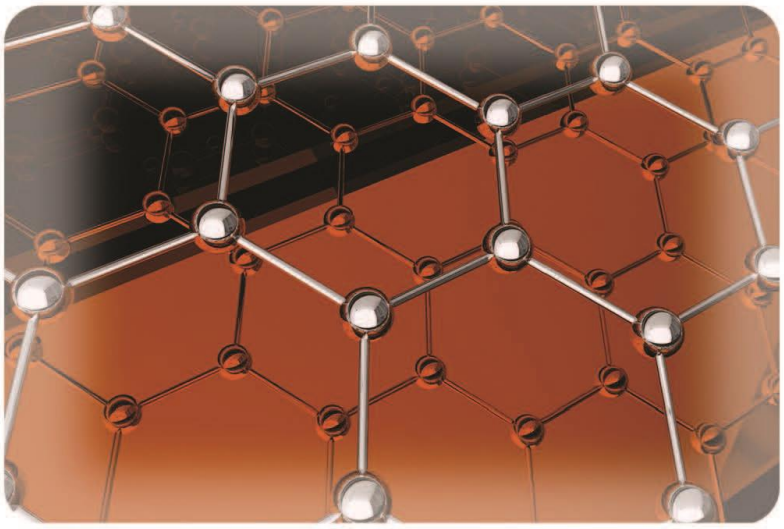
公司地址：苏州市工业园区星湖街 218 号 A7-504

第 5 届

中国（上海）国际纳米展览会暨高峰论坛
中国（上海）国际石墨烯应用产品展览会暨高峰论坛

2020年6月3-5日

国家会展中心（上海）3H



25,000 ㎡
规模

30,000+
观众

400+
展商

主办单位： 上海荷瑞会展有限公司　　上海中壹展览有限公司

合作机构：

中国微米纳米技术学会
国家石墨烯材料产业技术创新战略联盟
中国石墨烯商业应用旗舰计划工作委员会
北京纳米科技产业创新联盟
中国材料研究学会
国家石墨烯应用产业技术创新战略联盟
上海市纳米技术协会
上海硅酸盐工业协会

支持单位：

中国科学院上海硅酸盐研究所
纳米技术及应用国家工程研究中心
中国碳纤维及复合材料产业发展联盟
中国化工学会橡胶专业委员会
工程塑料国家工程研究中心
中国电子材料行业协会半导体材料分会
上海市纳米科技与产业发展促进中心
国家新型储能电池与材料产业技术创新战略联盟
中国智能光伏产业技术创新战略联盟
中国硅酸盐学会薄膜与涂层分会
中国硅酸盐学会晶体生长与材料分会
中国汽车工程学会汽车材料分会
中国电子元件行业协会电子陶瓷及器件分会中国航空学会材料工程专业分会

联系方式

电话：021-56920866　邮箱：skzl@skzl.net　联系人：李艳

关注公众号
了解更多

微纳遇见光

中国微米纳米技术学会秘书处

【地址】中国北京市海淀区清华大学精密仪器系3301室
【邮编】100084
【电话】010-62772108、62796707
【邮箱】csmnt@mail.tsinghua.edu.cn
【学会官网】http:// www.csmnt.org.cn
【会议网站】http://annual2019.csmnt.org.cn
【承办方联系方式】彭茜pengqian_an_lia@whu.edu.cn

学会微信公众号

会议手机微网站