

	Requirement		Postdoc work		Institution	
	Major	Number	research field	Duty	professor	Tel/E-mail
ANHUI INSTITUTE OF OPTICS AND FINE MECHANICS (AIOFM)						
1	Optical Crystal	3	laser crystal, scintillator	crystal growth and their properties on the new-type laser crystal, heavy scintillators and so on	Qingli Zhang	0551-65591815/zql@aiofm.ac.cn
2	Semiconductor materials and devices	1	Semiconductor sensing devices	High-performance photodetectors, highly sensitive metal oxide gas sensors	Gang Meng	0551-65593662/xdfang@aiofm.ac.cn
3	Detection Technology and Automatic Equipment	1	Artificial olfactory system	Signal acquiring and feature extracting of sensor arrays, exploring smart artificial olfactory system	Gang Meng	0551-65593663/xdfang@aiofm.ac.cn
4	micro/nano photonics	1	Novel principles and functional devices in micro/nano-photonics	study the novel phenomena of micro/ nano- optical system both in theory and experiments, design various novel micro/nano- photonic functional devices	Qinghe Mao	0551-65593375/mqinghe@aiofm.ac.cn
5	optical fiber technology	2	fiber laser technology	single-frequency fiber laser technology, femtosecond fiber laser, optical frequency comb	Qinghe Mao	0551-65593375/mqinghe@aiofm.ac.cn
6	Optoelectronics	3	High sensitive gas online monitoring、optical fiber sensing	To solve the practical engineering problems, we carried out the research work related to on-line monitoring of a variety of landmark gases, optical fiber sensing and laser-induced breakdown spectroscopy technology.	ZHANG Zhirong	0551-65595001/zhangzr@aiofm.ac.cn
7	Photoelectric or atmospheric remote sensing	1	Atmospheric remote sensing	Develop atmospheric remote sensing equipment and analysis comprehensive data.	Qinshang Xu	18963791209 qshxu@aiofm.ac.cn

8	Analytical chemistry/Molecular biology	1	Application of microfluidic device in biomedicine.	Design and fabrication of microfluidic device, including human organs-on-a-chip. Research of the method of nucleic acids amplification, gene mutation and SNP based on <u>microfluidic device</u>	Yong Liu	0551-65591077/liuyong@aiofm.ac.cn
9	Analytical chemistry/Biomedical engineering	1	Driving and controlling technology of micro and nano fluids and its application in digital PCR	research on the system of micro-droplet generation and distribution, including designing of novel droplet microfluidic chip, and driving and controlling of the microfluidics	Yong Liu	0551-65591077/liuyong@aiofm.ac.cn
10	Optics/Biomedical Engineering/Physical Chemistry/Physics	3	Biomedical spectroscopy and spectral imaging	Optical spectral and imaging techniques in clinical diagnosis	Yong Liu	0551-65591077/liuyong@aiofm.ac.cn
11	Biophysics/Dermatovenerology/medical histology/dermatology	1	Tissue Optics	Study the fine structure, molecular composition and optical properties of human skin tissue, and the interaction between light and skin tissue, the noninvasive optical detection methods and techniques for several important biomarkers in	Yong Liu	0551-65591077/liuyong@aiofm.ac.cn
12	biosensor &bioelectronics	1	SERS substrate,fluorescent nanotags	lable and lable-free detection of vius and bacteria for point of care testing	Long Zhang	0551-65593677/zhanglong@aiofm.ac.cn
13	Spectroscopy / detection technology and automation device	1	Spectrum detection system, intelligent detection technology	Research on rapid spectral detection technology, spectral data analysis and processing, research and development of intelligent detection instruments	Long Zhang	0551-65593677/zhanglong@aiofm.ac.cn
INSTITUTE OF SOLID STATE PHYSICS (ISSP)						
1	Computational Condensed Matter Physics	2	Radiation damage mechanism of nuclear energy engineering materials	Research on radiation damage mechanism, hydroge and helium effects as well as their synergistic effects of nuclear materials based on multi-scale simulation and machine learning	Xuebang Wu	0551-65595260 xbwu@issp.ac.cn

2	Materials physics and chemistry	2	Research and development of nuclear energy engineering materials	Design and preparation of tungsten-based materials and copper-based materials for fusion reactors, and research on radiation damage behaviors	Xuebang Wu	0551-65595260 xbwu@issp.ac.cn
3	Computational condensed matters/Computational material sciences	1	thermoelectric materials	Developing new methodologies to study the physical mechanism of thermoelectric materials, and designing high efficient materials.	Yongsheng Zhang	0551- 65591680/yshzhang@theory.issp.ac.cn
4	High pressure physics	1	Experimental investigations of material properties under high-pressure	Techniques for high pressure experiments, especially for studies of low-Z elements (such as hydrogen, nitrogen and other functional compounds) under high-pressure by using the diamond anvil cell (DAC) apparatus.	Xianlong Wang	0551- 65591591/xlwang@theory.issp.ac.cn
5	Condensed matter physics	1	Simulations of material properties under high-pressure	Techniques for simulations, especially for studies of low-Z elements (such as hydrogen, nitrogen and other functional compounds) under high-pressure by using the first-principles method and	Xianlong Wang	0551- 65591591/xlwang@theory.issp.ac.cn
6	Condensed Matter Physics	2	Spintronics	Theoretical investigations on new spintronic materials and devices	Ding-Fu Shao	0551-65591439- 211/dfshao@issp.ac.cn
7	Polymer	2	Polyimide and other functional films	Focusing on the needs of aerospace, 5g communication and other fields, the preparation and properties of polyimide, polytetrafluoroethylene and other	Xingyou Tian	0551- 65595919/xytian@issp.ac.cn
8	Material physics and chemistry	2	Electronic functional materials	Focus on the requirements of new display, integrated circuit and other fields, and carry out research on electronic packaging thermal management materials, flexible electronics and other materials	Xingyou Tian	0551- 65595919/xytian@issp.ac.cn

9	Chemistry, Physics, Materials Science	2	Study of electrochemistry behavior and mechanism for solar cells or aqueous ion	A postdoc position is available for the study of electrochemistry behavior and mechanism for novel solar cells or aqueous ion battery	Linhua Hu	lhhu@rntek.cas.cn
10	Material Physics & Chemistry	2	thermal control materials	synthesis and their properties on heat insulating materials, photo to heat conversion materials and thermal rectification etc.	Zhenyang Wang	0551- 65591812 zywang@iim.ac.cn
11	Material Physics & Chemistry	2	Graphene-based energy materials and devices	Fabrication & structure regulation of graphene electrodes and their applications in energy devices such as supercapacitor, lithium ion battery and fuel cell	Zhenyang Wang	055165591812 zywang@iim.ac.cn
12	Analytical chemistry	2	Nanosensing and bio-chemical detection	Design and synthesis of nano-optical materials, optical sensing analysis methods, organic small molecular probes	Jiang changlong	cjiang@iim.ac.cn
13	Materials Physics and Chemistry	1	Anode materials for lithium ion battery	Use Al-Si alloy method to prepare Si/C anode materials. Use a variety of methods to characterize, analysis, and develop new high-performance Si/C anode materials as well as carry out scale-up production.	John Jian Chen	65592171 jchen@ipp.ac.cn
14	Minerals processing, Materials Science or Chemistry, etc.	1	Quartz materials purification	Use a variety of methods to purify and characterize quartz materials, develop new technologies for preparing high-purity quartz sand and downstream products as well as carry out scale-up production.	John Jian Chen	65592171 jchen@ipp.ac.cn

HIGH MAGNETIC FIELD LABORATORY (CHMFL)

1	Condensed matter physics (theoretical or experimental)	2	research about quantum material	search for new low-power quantum material/matter; explore emergent physics in quantum material; Design and fabricate the prototype devices	Ning Hao	haon@hmfl.ac.cn
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2	Condensed matter Physics	1	Strong Correlated System	materials synthesis, transport measurements under High manetic field and other exetreme conditions, superconductivity	Xiangde Zhu	13637063970/xdzhu@hmfl.ac.cn
3	Condensed physical or functional materials	2	Development and application of strong magnetic field STM, MFM, AFM, near-field optical microscope or single crystal / thin film sample	Apply home built cutting edge strong magnetic field STM/MFM/AFM or material syntheses systems to study local electron state of quantum materials or to synthetize new materials	Qingyou LU	13003003601/qxl@ustc.edu.cn
4	Biophysics	1	Magnetic Resonance Image	Familiar with the theory of magnetic resonace image (MRI) , excellent in MRI experimental set up or data processing	Changlin Tian	15256070630/cltian@ustc.edu.cn

INSTITUTE OF INTELLIGENT MACHINES (IIM)

1	Pattern recognition and intelligent system	1	Computer vision/Medical image processing	Medical image analysis, image-guided therapy, computer-assisted surgery system and surgical robotics	Bo Song	0551-65592022/songbo@iim.ac.cn
2	Mechanical Engineering	2	Advanced Manufacturing Technology	Precision/Ultra-precision Machining and Automation; Additive Manufacturing and Process Control	Kunpeng Zhu	0519-86339823/zhukp@iamt.ac.cn
3	Mchanics	1	Mechanical Analysis and Modeling	Analysis and Control on Vibration and Noise	Xiaojie Wang	0519-86339821/xjwang@iamt.ac.cn

INSTITUTE OF HEALTH AND MEDICAL TECHNOLOGY (IHMT)

1	medicinal chemistry	1	chemical synthesis	Design, synthesis, and preclinical optimization of small molecule inhibitors against major diseases	Qingsong Liu	qsliu97@hmfl.ac.cn
2	medicinal pharmacology	1	biomedical research	Systematic study of mechnisms of small molecule compounds in major diseases and discovery of novel drug targets	Qingsong Liu	qsliu97@hmfl.ac.cn

3	Nuclear Science and Engineering	1	Radionuclide pollution control	Study the diffusion, sedimentation, migration and transformation, adsorption and desorption of radionuclides in environmental media, as well as absorption, enrichment and carrying in organisms etc	Chu Yannan	ychu@aiofm.ac.cn
4	Cell Biology/Immunology/Molecular Biology	3	Biology of tumor therapy	To explore the biological principles in tumor therapy	Wei HAN	0551-65595100 hanw@hfcas.ac.cn
5	Image Processing/Machine Learning/Computer Science/Mathematics/neuropsychology	2	Image Processing	Computer-aided Diagnosis、Brain structure and function	Hai Li	hli@cmpt.ac.cn
6	Biomedical Engineering/Computer Science	2	Image-guided Therapy	Image-guided Therapy	Hai Li	hli@cmpt.ac.cn
7	Biology/Medicine	2	Epigenetic Regulation and Tumor Immunity	Investigation of epigenetic regulation of cancer development, deciphering of the tumor microenvironment and the mechanism underlying tumor immune evasion, development of strategies to improve precision cancer therapy.	Yan-Yi Jiang	0551-65596050 yanyij@cmpt.ac.cn
8	Genomics or Molecular Biology	3~5	Cancer epigenetics	Utilize single-cell multiomics to investigate the origin, development and evolution of tumor. Develop technologies for pan-cancer screening and treatment monitoring.	HongCang Gu	gu_hongcang@cmpt.ac.cn

INSTITUTE OF NUCLEAR ENERGY SAFETY TECHNOLOGY (INEST)

1	Material Science and Engineering	1	Fabrication and characterization of high-entropy alloys	Physical metallurgy, microstructure and properties characterization of high-entropy alloys	Mingjie Zheng	0551-65592237/mingjie.zheng@inest.cas.cn
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2	Materials Science and Engineering	1	Materials Corrosion and Protection Technology	Development of advanced reactor materials and its anti-corrosion technologies in liquid metal environments (lead or LBE, lithium or lithium alloys)	Mingjie Zheng	0551-65592237/mingjie.zheng@inest.cas.cn
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