

Helmholtz-OCPC-Program
Jülich PostDoc project offers
2020

No.	Title of the project	PI at Jülich	Jülich's Institute	Existing/planned cooperations	Additional cooperation partner
FZJ 001	Environment Barrier Coatings Deposited by Suspension Plasma Spraying and Aerosol Deposition	Prof.Dr. Robert Vaßen	IEK-1	<ul style="list-style-type: none"> • Wuhan University 	also open for new partners
FZJ002	Development of Novel Transparent Conductive Oxide/p-Type Rear Contact for High Efficiency Silicon Heterojunction Solar Cells	Dr. Kaining Ding	IEK-5	<ul style="list-style-type: none"> • Shanghai Institute of Microsystem and Information Technology • Sun Yat-sen University (SYSU- ISES) • Institute of Electrical Engineering, the Chinese Academy of Sciences (IEE-CAS) 	also open for new partners
FZJ003	Deep learning for high-throughput, imaging-based plant phenotyping	Dr. Hanno Scharf	IBG-2		
FZJ004	Characteristics of 3D edge transport in magnetically confined fusion devices with island divertor configuration	Prof. Dr. Yunfeng Liang	IEK-4	<ul style="list-style-type: none"> • Institute of Plasmy Physics (CAS) • Southwestern Institute of Physics (SWIP) • Huazhong University of Science and Technology 	also open for new partners
FZJ005	Characteristics of 3D divertor heat flux distribution in magnetically confined fusion devices with island divertor configuration	Prof. Dr. Yunfeng Liang	IEK-4	<ul style="list-style-type: none"> • Institute of Plasmy Physics (CAS) • Southwestern Institute of Physics (SWIP) • Huazhong University of Science and Technology 	also open for new partners

FZJ006	Contraction of a microwave heated CO ₂ -plasma - extending a plasma chemistry model by a two-dimensional discharge contraction model	Dr. Dirk Reiser	IEK-4		
FZJ007	Influence of microstructure and interfaces on the hydrogen permeation and retention in tungsten coated steel for fusion applications	Dr. Anne Houben	IEK-4	• Hefei University of Technology (HFUT)	
FZJ008	Secondary Aerosol Formation by Atmospheric Mixing of Biogenic and Anthropogenic Volatile Organic Compounds	Prof. Dr. Thomas Mentel	IEK-8	• College of Environmental Sciences and Engineering, Peking University, Beijing	also open for new partners
FZJ009	Laser-induced breakdown spectroscopy for in-situ gas recycling analysis during plasma exposure	Dr. Jannis Oelmann	IEK-4	• School of Physics and Optical Engineering, Dalian University of Technology	
FZJ010	Generation of CO ₂ -based chemicals in photovoltaic-electrochemical devices	Dr. Vladimir Smirnov Dr. Tsvetelina Merdzhanova	IEK-5	• National Centre for Nanoscience and Technology, Beijing	also open for new partners
FZJ011	Deformation of biological cells in microfluidic flow	Dr. Dmitry Fedosov	ICS-2	• Department of Aeronautics and Astronautics, Zhejiang University	also open for new partners
FZJ012	Interface engineering of all-inorganic halide perovskites for photovoltaics	Prof. Dr. Thomas Kirchartz	IEK-5	• Institute of Solar Energy System, Sun Yat-sen University (ISE-SYSU)	also open for new partners
FZJ013	High-quality inorganic perovskite thin film materials for solar cells	Prof. Dr. Thomas Kirchartz	IEK-5	• Institute of Solar Energy System, Sun Yat-sen University (ISE-SYSU)	also open for new partners
FZJ014	Molecular Synaptosome of Autistic Spectrum Disorder	Prof. Dr. Douglas Armstrong Prof. Dr. Paolo Carloni Dr. Alejandro Giorgetti	INM-9	• College of Chemistry, Fuzhou University (FZU)	also open for new partners
FZJ015	Rational design of ligands targeting alphy-synuclein in Parkinson's disease	Dr. Giulia Rossetti Prof. Dr. Paolo Carloni	IAS-5 INM-9	• University of Peking	also open for new partners

FZJ016	Novel two-dimensional silicon FET structures for biosensing applications	Prof. Dr. Svetlana Vitusevich	ICS-8	<ul style="list-style-type: none"> • Shanghai Institute of Microsystem and Information Technology (SIMIT) 	also open for new partners
FZJ017	Large scale protein simulation techniques and structure data mining	Dr. Olav Zimmermann	JSC/IAS	<ul style="list-style-type: none"> • Computational Biology and Bioinformatics Group at Shenzhen Institutes of Advanced Technology (SIAT) 	