

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 Plasma 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 Plasma Physics (CAS) • Southwestern Institute of Physics (SWIP) • Huazhong University of Science and Technology | also open for new partners |

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| 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 Carlone 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 Carlone | IAS-5 INM-9 | • University of Peking | also open for new partners |

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| 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) | |
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