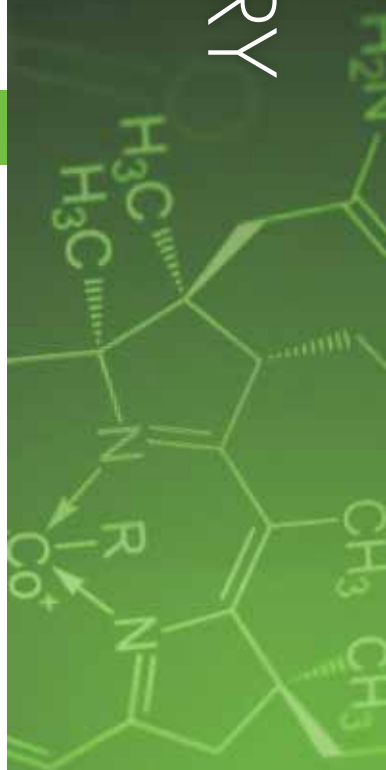




Research in Germany

CHEMISTRY



AN INITIATIVE OF THE



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of Education
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Research in
Germany



Land of Ideas



Research in Germany

Imprint

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CHEMISTRY

PREFACE

Germany has a long-standing tradition of excellence in chemistry education and research. This brochure provides an insight into research in Germany in the field of chemistry and is especially recommended to early career researchers from abroad.
















Chemical research in Germany is primarily conducted at universities but also at non-university research institutions. Almost all universities and many universities of applied sciences host a chemical research section. The spectrum ranges from small monothematic working groups to large interdisciplinary departments and covers a variety of topics from traditional areas to new explorative research fields.

This brochure is intended to give an initial overview. The following map and tables highlight research consortia and graduate training programmes at universities and non-university research institutes with a main focus on chemical research.

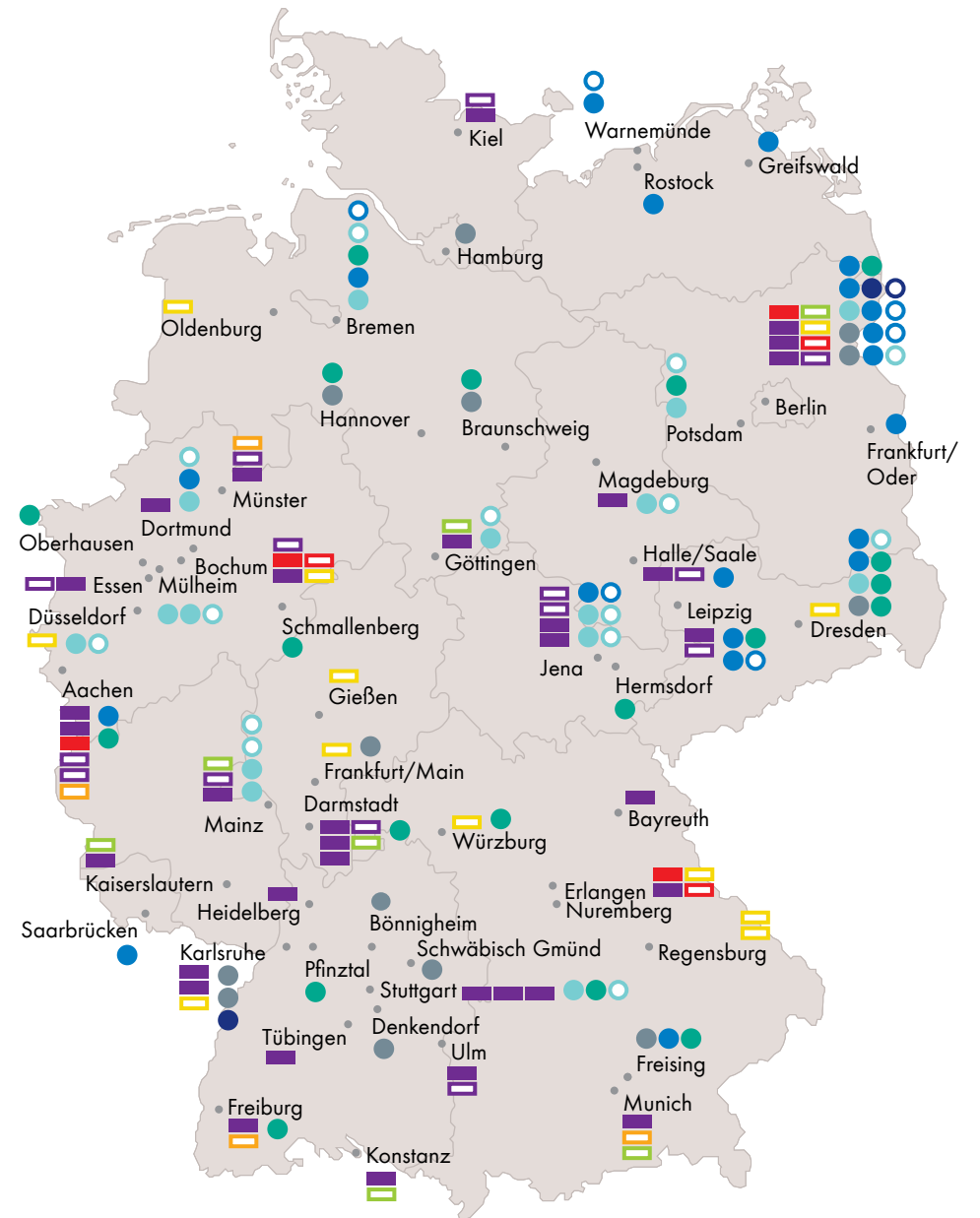
On top of this, there is a lot more to discover: e.g. the DFG funds a multitude of individual projects in chemical research. These individual grants outweigh the research consortia both in number and in overall funding volume. Towards the end of this brochure, you will find a link to the online database GEPRIIS that provides an overview of all DFG funded research projects. You will also find additional important links for further information about programmes in the field of chemistry and profiles of German universities and research institutions.

We invite you to explore the many opportunities that Germany has to offer and welcome your feedback.

OVERVIEW

 Graduate Schools	 Helmholtz Graduate Schools
 Research Training Groups	 Leibniz Graduate Schools
 International Research Training Groups	 International Max Planck Research Schools
 Integrated Research Training Groups in Clusters of Excellence	 Fraunhofer Institutes
 Integrated Research Training Groups in Collaborative Research Centres/Transregios	 Helmholtz Centres
 Clusters of Excellence	 Leibniz Institutes
 Collaborative Research Centres/Transregios	 Max Planck Institutes
	 Others

DFG funded Priority Programmes and Research Units are not shown on the map since they are not necessarily located at a single location; they are listed on pages 13 and 15.



CENTRES OF RESEARCH

- FUNDED BY DFG -

Clusters of Excellence (EXC) were established at universities in the framework of the German Excellence Initiative and promote cutting-edge research. Their objective is to engage in scientific networking and collaboration in research fields of particular promise for the future. They also offer excellent training conditions and career opportunities for early career researchers.

Collaborative Research Centres (CRC) are organisational units established at universities which enable researchers to pursue an outstanding research programme crossing the boundaries of disciplines, institutes, departments and faculties. The traditional Collaborative Research Centre is generally applied for by one university and is conducted by researchers of that university. Early career support is a key objective of the Collaborative Research Centre Programme. Early career researchers may get involved in a CRC in numerous ways, for example within the framework of an Integrated Research Training Group. Collaborative Research Centres are funded for a period of up to 12 years.

Transregios (TRR) are Collaborative Research Centres in which up to three universities collaborate with each other and submit a joint application. The contributions of the cooperative partners are essential, complementary and synergetic to the joint research objective. Funding facilitates close, nationwide collaboration among the participating universities and researchers, as well as networking and shared use of resources. There is also the option of international Transregios.

CENTRES OF RESEARCH

Location	Institution	Title	Funded Since	Contact
CLUSTERS OF EXCELLENCE				
 Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	Tailor-Made Fuels from Biomass (TMFB) (EXC 236)	2007	www.fuelcenter.rwth-aachen.de
 Berlin	Technische Universität Berlin	Unifying Concepts in Catalysis (UniCat) (EXC 314)	2007	www.unicat.tu-berlin.de
 Bochum	Ruhr-Universität Bochum	RESOLV (Ruhr Explores Solvation) – Understanding and Design of Solvent Controlled Processes (EXC 1069)	2012	www.ruhr-uni-bochum.de/solvation
 Erlangen-Nuremberg	Friedrich-Alexander-Universität Erlangen-Nürnberg	Engineering of Advanced Materials – Hierarchical Structure Formation for Functional Devices (EAM) (EXC 315)	2007	www.eam.uni-erlangen.de
COLLABORATIVE RESEARCH CENTRES				
 Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	Functional Microgels and Microgel Systems (CRC 985)	2012	www.microgels.de
 Bayreuth	Universität Bayreuth	From Particulate Nanosystems to Mesotechnology (CRC 840)	2009	www.sfb840.uni-bayreuth.de
 Berlin	Humboldt-Universität zu Berlin	Understanding of Oxide/Water Systems at the Molecular Scale: Structural Evolution, Interfaces, and Dissolution (CRC 1109)	2013	www.chemie.hu-berlin.de/forschung/sfb1109
 Berlin	Freie Universität Berlin	Multivalency as Chemical Organization and Action Principle: New Architectures, Functions and Applications (CRC 765)	2007	www.sfb765.de (DE)
 Darmstadt	Technische Universität Darmstadt	Interaction between Transport and Wetting Processes (CRC 1194)	2016	www.sfb1194.tu-darmstadt.de/sfb_1194
 Erlangen-Nuremberg	Friedrich-Alexander-Universität Erlangen-Nürnberg	Synthetic Carbon Allotropes (CRC 953)	2011	www.sfb953.fau.de
 Essen	Universität Duisburg-Essen	Supramolecular Chemistry on Proteins (CRC 1093)	2013	www.uni-due.de/crc1093

CENTRES OF RESEARCH

Location	Institution	Title	Funded Since	Contact
Göttingen	Georg-August-Universität Göttingen	Functionality Controlled by Organization in and between Membranes (CRC 803)	2008	www.sfb803.uni-goettingen.de
Heidelberg	Universität Heidelberg	N-Heteropolycycles as Functional Materials (CRC 1249)	2016	www.uni-heidelberg.de/fakultaeten/chemgeo/aci/gade/sfb1249/pages
Jena	Friedrich-Schiller-Universität Jena	Polymer-based Nanoparticle Libraries for Targeted Anti-inflammatory Strategies (CRC 1278)	2017	www.polytarget.uni-jena.de
Karlsruhe	Karlsruher Institut für Technologie	Molecular Structuring of Soft Matter (CRC 1176)	2015	www.sfb1176.de
Kiel	Christian-Albrechts-Universität zu Kiel	Function by Switching (CRC 677)	2007	www.sfb677.uni-kiel.de
Konstanz	Universität Konstanz	Anisotropic Particles as Building Blocks: Tailoring Shape, Interactions and Structures (CRC 1214)	2016	www.sfb1214.uni-konstanz.de
Mainz	Johannes Gutenberg-Universität Mainz	Nanodimensional Polymer Therapeutics for Tumour Therapy (CRC 1066)	2013	www.sfb1066.uni-mainz.de (DE)
Münster	Westfälische Wilhelms-Universität Münster	Synergetic Effects in Chemistry - From Additivity towards Cooperativity (CRC 858)	2009	www.wwu.de/SFB858
Munich	Ludwig-Maximilians-Universität München	Dynamics and Intermediates of Molecular Transformations (CRC 749)	2007	www.sfb749.de
Stuttgart	Universität Stuttgart	Molecular Heterogeneous Catalysis in Confined Geometries (CRC 1333)	2018	http://gepris.dfg.de/gepris/projekt/358283783

COLLABORATIVE RESEARCH CENTRES/TRANSREGIOS

Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	Oxyflame – Development of Methods and Models to Describe Solid Fuel Reactions within an Oxy-Fuel Atmosphere (TRR 129)	2013	www.oxyflame.com
Bochum	Ruhr-Universität Bochum			
Darmstadt	Technische Universität Darmstadt			

CENTRES OF RESEARCH

Location	Institution	Title	Funded Since	Contact
Berlin Dortmund	Technische Universität Berlin Technische Universität Dortmund	Integrated Chemical Processes in Liquid Multiphase Systems (InPROMPT) (TRR 63)	2009	www.inprompt.tu-berlin.de
Magdeburg	Otto-von-Guericke-Universität Magdeburg			
Halle/Saale Leipzig	Martin-Luther-Universität Halle-Wittenberg Universität Leipzig	Polymers under Multiple Constraints: Restricted and Controlled Molecular Order and Mobility (TRR 102)	2011	www.natfak2.uni-halle.de/sfbtrr102
Jena	Friedrich-Schiller-Universität Jena	Light-driven Molecular Catalysts in Hierarchically Structured Materials - Synthesis and Mechanistic Studies (Catalight) (TRR 234)	2018	www.ceec.uni-jena.de/ceec_fe/en/Our+Research/Light_Energy+Conversion
Ulm	Universität Ulm			
Kaiserslautern Karlsruhe	Technische Universität Kaiserslautern Karlsruher Institut für Technologie (KIT)	Cooperative Effects in Homo- and Heterometallic Complexes (3MET) (TRR 88)	2010	www.uni-kl.de/3met
Stuttgart Darmstadt	Universität Stuttgart Technische Universität Darmstadt	Droplet Dynamics under Extreme Ambient Conditions (TRR 75)	2009	www.sfbtrr75.de (DE)
Stuttgart Freiburg Tübingen	Universität Stuttgart Albert-Ludwigs-Universität Freiburg Eberhard Karls Universität Tübingen	Biological Design and Integrative Structures. Analysis, Simulation and Implementation in Architecture (TRR 141)	2014	http://trr141.de

RESEARCH UNITS

-FUNDED BY DFG-

Research Units (FOR) often contribute to establishing new research directions. Research Units are made up of a team of researchers working together on a research project which is often of an interdisciplinary nature. Research units consist of several researchers and subprojects. The subprojects of a Research Unit are often located at several locations throughout Germany. Research Units are generally funded for up to six years.

Research Units are not shown on the map. Only the titles of the thematic focus and the project websites are listed.



RESEARCH UNITS

Title	Funded Since	Contact
Switchable Metal-Organic Frameworks (MOF-Switches) (FOR 2433)	2016	www.metal-organic-frameworks.de
Multiskalen-Analyse komplexer Dreiphasensysteme (FOR 2397)	2016	www.for2397.tu-clausthal.de
Integrierte Chemische Mikrolaboratorien (InChem) (FOR 2177)	2015	www.in-chem.de
Nanoporous Gold – A Prototype for a Rational Design of Catalysts (FOR 2213)	2014	www.uni-bremen.de/en/mapex/research/coordinated-research-programs.html
Acting Principles of Nano-Scaled Matrix Additives for Composite Structures (FOR 2021)	2014	www.tu-braunschweig.de/iaf/forschung/forschung/wirkprinzipien/index.html
Multi-Functional Conversion of Chemical Species and Energy (FOR 1993)	2013	www.uni-due.de/for1993
Exploring the Dynamical Landscape of Biomolecular Systems by Pressure Perturbation (FOR 1979)	2013	www.ccb.tu-dortmund.de/fb03/for1979
funCOS – Functional Molecular Structures on Complex Oxide Surfaces (FOR 1878)	2013	www.funcos.uni-erlangen.de
Light-Induced Dynamics in Molecular Aggregates (FOR 1809)	2012	www.for1809.uni-wuerzburg.de
Intermolecular and Interatomic Coulombic Decay (FOR 1789)	2012	www.icd.uni-frankfurt.de
Chemistry and Technology of the Ammonothermal Synthesis of Nitrides (FOR 1600)	2011	www.ammono-for.org
Hydrogen-Bonded Liquids Subject to Interfaces of Various Hydroaffinities (FOR 1583)	2011	www.fkp.tu-darmstadt.de/groups/for_1583

PRIORITY PROGRAMMES

- FUNDED BY DFG -

Priority Programmes (SPP) have a programmatic focus and the purpose of advancing knowledge in an emerging field of research through collaborative networked support. They are characterised by their enhanced quality of research through the use of new methods and forms of collaboration in emerging fields. As a rule, one programme can consist of up to 30 individual subprojects located at several institutions across Germany; it usually has one coordinating person. Priority Programmes normally receive funding for a period of up to six years.

Priority Programmes are not shown on the map. Only the titles of the overall themes and the project websites are listed.



PRIORITY PROGRAMMES

Title	Funded Since	Contact
Light Controlled Reactivity of Metal Complexes (SPP 2102)	2018	www.spp2102.uni-mainz.de
Manipulation of Matter Controlled by Electric and Magnetic Fields: Towards novel synthesis and processing routes of inorganic materials (SPP 1959)	2016	www.fieldsmatter.de
Dispersitäts-, Struktur- und Phasenänderungen von Proteinen und biologischen Agglomeraten in biotechnologischen Prozessen (DiSPBiotech) (SPP 1934)	2016	http://dispbiotech.tu-braunschweig.de
Coordination Networks: Building Blocks for Functional Systems (SPP 1928)	2016	www.coornets.tum.de
Control of London Dispersion Interactions in Molecular Chemistry (SPP 1807)	2015	www.uni-giessen.de/cms/fbz/fb08/dispersion
Chemical Biology of Native Nucleic Acid Modifications (SPP 1784)	2015	www.spp1784.uni-mainz.de (DE)
Reactive Bubbly Flows (SPP 1740)	2014	www.dfg-spp1740.de
Material Synthesis Near Room Temperature (SPP 1708)	2014	www.low-temperature-synthesis.de
Dynamische Simulation Vernetzter Feststoffprozesse (Dyn-Sim-Fp) (SPP 1679)	2013	www.dynsim-fp.de
Chemoselective Reactions for the Synthesis and Application of Functional Proteins (SPP 1623)	2012	www.spp1623.de
Regeneratively Produced Fuels by Light Driven Water Splitting: Investigation of Involved Elementary Processes and Prospects for Technological Implementation (SPP 1613)	2012	www.solarh2.tu-darmstadt.de



Fraunhofer Society is one of the world's leading organisations for applied research with an annual research budget of 2.1 billion euros, 69 institutes and more than 24,500 employees. Fraunhofer's R&D portfolio covers a wide range of fields, including health, security, communications, transport, energy and the environment. www.fraunhofer.de

The Helmholtz Association contributes to solving major challenges facing society, science and industry with world-level research in six areas: energy, earth and environment, health, key technologies, structure of matter and aeronautics, space and transport. With more than 38,000 employees in 18 research centres and an annual budget of approximately 4.24 billion euros, the Helmholtz Association is Germany's largest scientific organisation. www.helmholtz.de

The Leibniz Association is an umbrella organisation of 89 research institutes. The annual budget amounts to 1.73 billion euros. Some 9,300 researchers – approximately 20% of them from abroad – work on a widely diverse range of subjects, including the humanities and social sciences, economics, spatial and life sciences, mathematics, natural and engineering sciences and environmental research. www.leibniz-association.eu

The Max Planck Society for the Advancement of Science is one of Germany's largest independent non-profit research organisations. The Max Planck Society has been allocated approximately 1.8 billion euros for 2016. A combined total of more than 13,000 researchers, postdoctoral/junior researchers and visiting researchers at 83 Max Planck Institutes conduct basic research in the natural sciences, life sciences, social sciences and humanities. One third of the researchers and more than half of the junior and visiting researchers come from abroad. www.mpg.de

Location	Institution	Contact
FRAUNHOFER INSTITUTES		
● Aachen Schmallenberg	Fraunhofer Institute for Molecular Biology and Applied Ecology (IME)	www.ime.fraunhofer.de
● Berlin-Teltow	Fraunhofer Research Institution for Polymeric Materials and Composites (PYCO)	www.pyco.fraunhofer.de
● Braunschweig	Fraunhofer Institute for Surface Engineering and Thin Films (IST)	www.ist.fraunhofer.de
● Bremen Dresden	Fraunhofer Institute for Manufacturing Technology and Advanced Materials (IFAM)	www.ifam.fraunhofer.de
● Darmstadt	Fraunhofer Institute for Structural Durability and System Reliability (LBF)	www.lbf.fraunhofer.de
● Dresden	Fraunhofer Institute for Material and Beam Technology (IWS)	www.iws.fraunhofer.de
● Dresden Hermisdorf	Fraunhofer Institute for Ceramic Technologies and Systems (IKTS)	www.ikts.fraunhofer.de
● Freiburg	Fraunhofer Institute for Solar Energy Systems (ISE)	www.ise.fraunhofer.de
● Freising	Fraunhofer Institute for Process Engineering and Packaging (IVV)	www.ivv.fraunhofer.de
● Hannover	Fraunhofer Institute for Toxicology and Experimental Medicine (ITEM)	www.item.fraunhofer.de
● Leipzig	Fraunhofer Institute for Cell Therapy and Immunology (IZI)	www.izi.fraunhofer.de
● Oberhausen	Fraunhofer Institute for Environmental, Safety and Energy Technology (UMSICHT)	www.umsicht.fraunhofer.de
● Pfinztal	Fraunhofer Institute for Chemical Technology (ICT)	www.ict.fraunhofer.de
● Potsdam	Fraunhofer Institute for Applied Polymer Research (IAP)	www.iap.fraunhofer.de
● Stuttgart	Fraunhofer Institute for Interfacial Engineering and Biotechnology (IGB)	www.igb.fraunhofer.de
● Würzburg	Fraunhofer Institute for Silicate Research (ISC)	www.isc.fraunhofer.de
HELMHOLTZ CENTRES		
● Berlin-Teltow	Helmholtz-Zentrum Geesthacht Centre for Materials and Coastal Research/ Institute of Biomaterial Science in Teltow (HZG)	www.hzg.de/institute/biomaterial_science/index.html.en
● Karlsruhe	Karlsruhe Institute of Technology (KIT)	www.kit.edu
LEIBNIZ INSTITUTES		
● Aachen	Leibniz Institute for Interactive Materials (DWI)	www.dwi.rwth-aachen.de
● Berlin	Leibniz Institute for Crystal Growth (IKZ)	www.ikz-berlin.de
● Berlin	Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB)	www.igb-berlin.de

NON-UNIVERSITY RESEARCH INSTITUTIONS

Location	Institution	Contact
Berlin	Leibniz Institute for Molecular Pharmacology (FMP)	www.fmp-berlin.info
Berlin	Max Born Institute for Nonlinear Optics and Short Pulse Spectroscopy (MBI)	www.mbi-berlin.de
Berlin Dortmund	Leibniz Institute for Analytical Sciences (ISAS)	www.isas.de
Bremen	Leibniz Centre for Tropical Marine Ecology (ZMT)	www.zmt-bremen.de
Dresden	Leibniz Institute for Solid State and Materials Research Dresden (IFW)	www.ifw-dresden.de
Dresden	Leibniz Institute of Polymer Research Dresden (IPF)	www.ipfdd.de
Frankfurt/ Oder	Leibniz Institute Innovations for High Performance Microelectronics (IHP)	www.ihp-microelectronics.com
Freising	German Research Centre for Food Chemistry (DFG)	www.dfg.de
Greifswald	Leibniz Institute for Plasma Science and Technology (INP)	www.inp-greifswald.de
Halle/ Saale	Leibniz Institute of Plant Biochemistry (IPB)	www.ipb-halle.de
Jena	Leibniz Institute for Natural Product Research and Infection Biology - Hans Knöll Institute (HKI)	www.hki-jena.de
Leipzig	Leibniz Institute of Surface Modification (IOM)	www.iom-leipzig.de
Leipzig	Leibniz Institute for Tropospheric Research (TROPOS)	www.tropos.de
Rostock	Leibniz Institute for Catalysis (LIKAT Rostock)	www.catalysis.de
Saarbrücken	Leibniz Institute for New Materials (INM)	www.inm-gmbh.de
Warnemünde (Rostock)	Leibniz Institute for Baltic Sea Research Warnemünde (IOW)	www.io-warnemuende.de
MAX PLANCK INSTITUTES		
Berlin	Fritz Haber Institute of the Max Planck Society (FHI-Berlin)	www.fhi-berlin.mpg.de
Bremen	Max Planck Institute for Marine Microbiology (MPI-MM)	www.mpi-bremen.de
Dortmund	Max Planck Institute for Molecular Physiology (MPI-Dortmund)	www.mpi-dortmund.mpg.de
Dresden	Max Planck Institute for Chemical Physics of Solids (CPFS)	www.cpbs.mpg.de
Düsseldorf	Max-Planck-Institut für Eisenforschung GmbH (MPIE)	www.mpie.de
Göttingen	Max Planck Institute for Biophysical Chemistry (MPIBC)	www.mpiipc.mpg.de
Jena	Max Planck Institute for Biogeochemistry (BGC-Jena)	www.bgc-jena.mpg.de
Jena	Max Planck Institute for Chemical Ecology (ICE)	www.ice.mpg.de
Magdeburg	Max Planck Institute for Dynamics of Complex Technical Systems Magdeburg (MPI-Magdeburg)	www.mpi-magdeburg.mpg.de
Mainz	Max Planck Institute for Chemistry (MPIC)	www.mpic.de
Mainz	Max Planck Institute for Polymer Research (MPIP)	www.mpip-mainz.mpg.de

NON-UNIVERSITY RESEARCH INSTITUTIONS

Location	Institution	Contact
Mülheim	Max Planck Institute for Chemical Energy Conversion (CEC)	www.cec.mpg.de
Mülheim	Max-Planck-Institut für Kohlenforschung (KOFO)	www.kofo.mpg.de
Potsdam	Max Planck Institute for Colloids and Interfaces (MPIKG)	www.mpikg.mpg.de
Stuttgart	Max Planck Institute for Solid State Research (FKF)	www.fkf.mpg.de
OTHERS		
Berlin	Federal Institute for Materials Research and Testing (BAM)	www.bam.de
Bönnigheim	Hohenstein Institute	www.hohenstein.de
Braunschweig Berlin	Physikalisch-Technische Bundesanstalt (PTB)	www.ptb.de
Denkendorf	Institute of Textile Chemistry and Chemical Fibres (ITCF)	www.itcf-denkendorf.de
Dresden	Nuclear Engineering and Analytics Inc. (VKTA)	www.vkta.de
Frankfurt/ Main	DECHEMA-Forschungsinstitut (DFI)	http://dechema-dfi.de
Freising	Hans-Dieter-Belitz-Institut für Mehl- und Eiweißforschung (HDBI)	www.hdbi.de
Hamburg	European Molecular Biology Laboratory (EMBL)	www.embl-hamburg.de
Hannover	Federal Institute for Geosciences and Natural Resources (BGR)	www.bgr.bund.de
Karlsruhe	EC Joint Research Centre – Institute for Transuranium Elements (JRC-ITU)	http://itu.jrc.ec.europa.eu
Karlsruhe	Max Rubner Institute Federal Research Institute of Nutrition and Food (MRI)	www.mri.bund.de
Schwäbisch Gmünd	fem Research Institute for Precious Metals + Metals Chemistry (FEM)	www.fem-online.de

GRADUATE TRAINING

- FUNDED BY DFG -











Graduate Schools (GSC) were established at universities in the framework of the German Excellence Initiative. Their objective is to provide training and qualification for outstanding doctoral students from Germany and abroad within an excellent research environment. They serve as an instrument of quality assurance in promoting early career researchers and offer large networks that cover wide areas of research.

Research Training Groups (RTG) combine an ambitious research programme at universities with comprehensive training, tailored supervision and academic freedom to form an ideal environment for a successful doctorate. Research Training Groups can also have an interdisciplinary approach. They are funded for a period of up to nine years.











International Research Training Groups (IRTG) provide opportunities for joint doctoral training programmes between German universities and universities abroad. The research and study programmes are jointly developed and supervised. Doctoral students in the programme spend six months at the partner institution.

Integrated Research Training Groups (within Clusters of Excellence or Collaborative Research Centres/Transregions) offer ideal research environments for doctoral researchers. The main aim of these structured training programmes is to provide young scientists and academics with opportunities to independently carry out research at an early stage of their career. The programmes further take care to closely integrate early career researchers into an academic network. Working in Clusters of Excellence or Collaborative Research Centres projects, doctoral researchers achieve additional qualifications. As research assistants in these projects, they contribute to the Research Centre's success. They are closely involved with the projects and have access to the entire project infrastructure.

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
GRADUATE SCHOOLS				
 Berlin	Humboldt-Universität zu Berlin	School of Analytical Sciences Adlershof (SALSA) (GSC 1013)	2012	www.salsa.hu-berlin.de
 Darmstadt	Technische Universität Darmstadt	Darmstadt Graduate School of Energy Science and Engineering (GSC 1070)	2012	www.esse.tu-darmstadt.de
 Göttingen	Georg-August-Universität Göttingen	Göttingen Graduate School for Neurosciences and Molecular Biosciences (GGNB) (GSC 226)	2007	www.uni-goettingen.de/en/56640.html
 Kaiserslautern Mainz	Technische Universität Kaiserslautern Johannes Gutenberg-Universität Mainz	MAterials Science IN Mainz (MAINZ) (GSC 266)	2007	www.mainz.uni-mainz.de
 Konstanz	Universität Konstanz	Konstanz Research School Chemical Biology (KoRS-CB) (GSC 218)	2007	www.chembiol.uni-konstanz.de
 Munich	Technische Universität München	International Graduate School of Science and Engineering (IGSSE) (GSC 81)	2006	www.igsse.tum.de
RESEARCH TRAINING GROUPS				
 Berlin	Freie Universität Berlin Humboldt-Universität zu Berlin	Fluorine as a Key Element: Discovering Innovative Synthetic Concepts to Generate Novel Molecules with Unique Properties (RTG 1582)	2009	www.bcp.fu-berlin.de/en/chemie/chemie/forschung/ResCenters/grkfluor
 Bochum	Ruhr-Universität Bochum	Confinement-controlled Chemistry (RTG 2376)	2018	www.confinement-controlled-chemistry.de
 Dresden	Technische Universität Dresden	Hydrogel-Based Microsystems (RTG 1865)	2012	https://tu-dresden.de/die_tu_dresden/fakultaeten/fakultaet_elektrotechnik_und_informationstechnik/ife/dfg1865
 Düsseldorf	Heinrich-Heine-Universität Düsseldorf	Natural Products and Natural Product Analogs Against Therapy-Resistant Tumors and Microorganisms: New Lead Structures and Modes of Action (RTG 2158)	2016	www.hera.hhu.de/strukturierte-promotionsprogramme.html (DE)

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Erlangen- Nuremberg Regensburg	Friedrich-Alexander- Universität Erlangen Nürnberg Universität Regensburg	Medicinal Chemistry of Selective GPCR Ligands (RTG 1910)	2012	www.grk1910.de
 Frankfurt/ Main	Johann Wolfgang Goethe-Universität Frankfurt am Main	Complex Scenarios of Light-Control (CLiC) (RTG 1986)	2014	www.clic.uni-frankfurt. de
 Gießen	Justus-Liebig- Universität Gießen	Substitution Materials for Sustainable Energy Technologies (RTG 2204)	2015	www.uni-giessen.de/ fbz/zentren/lama/ lehre/grk_2204
 Karlsruhe	Karlsruher Institut für Technologie	Molecular Architecture for Fluorescent Cell Imaging (RTG 2039)	2014	www.grk2039.kit. edu
 Oldenburg	Carl von Ossietzky University Oldenburg	Chemical Bond Activation (RTG 2226)	2017	www.uni-oldenburg. de/graduierntenkol- leg-2226
 Regensburg	Universität Regensburg	Chemical Photocatalysis (RTG 1626)	2009	www.chemie. uni-regensburg.de/ fakultaet/forschung/ grk1626
 Würzburg	Julius-Maximilians- Universität Würzburg	Molecular Biradicals: Structure, Properties and Reactivity (RTG 2112)	2015	www.uni-wuerzburg. de/grk2112/ startseite
INTERNATIONAL RESEARCH TRAINING GROUPS				
 Aachen	Rheinisch- Westfälische Technische Hochschule Aachen	Selectivity in Chemo- and Biocatalysis (SeleCa) (IRTG 1628)	2009	www.seleca.rwth- aachen.de
Osaka (Japan)	Osaka University			
 Freiburg Strasbourg (France)	Albert-Ludwigs- Universität Freiburg Université de Strasbourg	Soft Matter Science: Concepts for the Design of Functional Materials (SoMaS) (IRTG 1642)	2010	www. softmattergraduate. uni-freiburg.de
 Münster	Westfälische Wilhelms-Universität Münster	New Trends in Molecular Activation and Catalysis (IRTG 2027)	2013	www.uni-muenster. de/Chemie.ac/ irtg2027
Toronto (Canada)	University of Toronto			

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Munich Edmonton (Canada)	Technische Universität München University of Alberta	Alberta/TUM International Graduate School for Environmentally Responsible Functional Hybrid Materials (ATUMS) (IRTG 2022)	2015	www.makro. ch.tum.de/index. php?id=2598
INTEGRATED RESEARCH TRAINING GROUPS IN CLUSTERS OF EXCELLENCE				
 Berlin	Technische Universität Berlin	Berlin International Graduate School of Natural Sciences and Engineering (EXC 314, UniCat)	2007	www.big-nse.tu-berlin. de
 Bochum	Ruhr-Universität Bochum	Graduate School Solvation Science (EXC 1069, RESOLV)	2012	www.ruhr-uni-bochum. de/gss
 Erlangen- Nuremberg	Friedrich-Alexander- Universität Erlangen- Nürnberg	Graduate School Advanced Materials and Processes (GS AMP) (EXC 315, EAM)	2007	www.eam.uni- erlangen.de/ graduate-school
INTEGRATED RESEARCH TRAINING GROUPS IN COLLABORATIVE RESEARCH CENTRES				
 Aachen	Rheinisch- Westfälische Technische Hochschule Aachen	Integrated Research Training Group within: Functional Microgels and Microgel Systems (CRC 985)	2012	www.microgels.de
 Berlin	Freie Universität Berlin	Integrated Research Training Group within: Multivalency as Chemical Organization and Action Principle: New Architectures, Functions and Applications (CRC 765)	2009	www.sfb765.de/ Graduierntenkolleg (DE)
 Essen	Universität Duisburg- Essen	Integrated Research Training Group within: Supramolecular Chemistry on Proteins (CRC 1093)	2014	www.uni-due.de/ crc1093/en/ graduate-school
 Jena	Friedrich-Schiller- Universität Jena	Integrated Research Training Group within: Polymer- based Nanoparticle Libraries for Targeted Anti- inflammatory Strategies (CRC 1278)	2017	www.polytarget. uni-jena.de/Projects/ Z02.html
 Kiel	Christian-Albrechts- Universität zu Kiel	Integrated Research Training Group within: Function by Switching (CRC 677)	2007	www.sfb677.uni-kiel. de

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Mainz	Johannes Gutenberg-Universität Mainz	Integrated Research Training Group within: Nanodimensional Polymeric Therapeutics for Tumour Therapy (CRC 1066)	2013	www.sfb1066.uni-mainz.de (DE)
 Münster	Westfälische Wilhelms-Universität Münster	Integrated Research Training Group "Principles and Applications of Cooperative Effects" within: Synergetic Effects in Chemistry – From Additivity towards Cooperativity (CRC 858)	2010	www.wwu.de/SFB858/irtg.html
INTEGRATED RESEARCH TRAINING GROUPS IN COLLABORATIVE RESEARCH CENTRES/ TRANSREGIOS				
 Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	Integrated Research Training Group within: Oxyflame - Development of Methods and Models to Describe Solid Fuel Reactions within an Oxy-Fuel Atmosphere (TRR 129)	2013	www.oxyflame.de/program/projects/project-area/project/mgk.html
Bochum	Ruhr-Universität Bochum			
Darmstadt	Technische Universität Darmstadt			
 Halle/Saale Leipzig	Martin-Luther-Universität Halle-Wittenberg Universität Leipzig	Research Training Group "Polymers: Random Coils and Beyond" within: Polymers under Multiple Constraints: Restricted and Controlled Molecular Order and Mobility (CRC/ TRR102)	2011	www.natfak2.uni-halle.de/forschung/verbund/sfbtrr102
 Jena Ulm	Friedrich-Schiller-Universität Jena Universität Ulm	Integrated Research Training Group within: Light-driven Molecular Catalysts in Hierarchically Structured Materials - Synthesis and Mechanistic Studies (CatalLight) (TRR 234)	2018	www.ceec.uni-jena.de/ceec_fe/en/Our+Research/Light_Energy+Conversion

GRADUATE TRAINING



GRADUATE TRAINING

- AT NON-UNIVERSITY RESEARCH INSTITUTIONS -

Helmholtz Graduate Schools provide a roof under which a varied number of curricula in different fields, or across disciplines, can find a home. Helmholtz Graduate Schools constitute a valuable addition to the wide range of training programmes available within the Helmholtz Association. They offer optimal conditions for PhD students to work and enable them to create a network of contacts with fellow university researchers while also fostering the integration of participants into the research environment.

Leibniz Graduate Schools were established to foster the systematic promotion of junior researchers. Young researchers are given the opportunity to do their doctorates in an excellent, collaborative, cross-disciplinary research environment. To this end, Leibniz institutions cooperate closely with universities. As every Leibniz institution focuses on clearly defined, socially-relevant themes, doctoral candidates have a wealth of networking opportunities in a large, dedicated scientific community. The particular character of research at the institutions in the Leibniz Association, which includes fundamental, large-scale and application-oriented research, means doctoral candidates can conduct research from basic idea right through to application.

International Max Planck Research Schools (IMPRS) offer talented German and international junior scientists the opportunity to earn a doctorate under excellent research conditions. The research schools are established by one or several Max Planck Institutes. These IMPRS work in close cooperation with universities and other – sometimes international – research institutions. This provides an extraordinary framework for the graduate students to work in, and is a great advantage in interdisciplinary research projects, or in projects that require special equipment.

GRADUATE TRAINING

Location	Title	Contact
HELMHOLTZ GRADUATE SCHOOLS		
○ Teltow (Berlin)	Helmholtz Graduate School for Macromolecular Bioscience	http://macrobio.hzg.de
LEIBNIZ GRADUATE SCHOOLS		
○ Berlin	Leibniz Graduate School Dynamics in New Light (DinL)	www.mbi-berlin.de/DinL
○ Berlin	Leibniz Graduate School of Molecular Biophysics (FMP)	www.fmp-berlin.info/education/lgs
○ Bremen	Leibniz Graduate School on Genomic Biodiversity Research (GBR)	www.zfmk.de/en/research/research-centres-and-groups/graduate-school-gbr
○ Jena	International Leibniz Research School for Microbial and Biomolecular Interactions (ILRS Jena)	www.ilrs.hki-jena.de
○ Leipzig	Leibniz Graduate School on Clouds, Aerosols and Radiation: Mineral Dust (LGS-CAR)	www.lgs-car.tropos.de
○ Warnemünde (Rostock)	International Leibniz Graduate School for Gravity Waves and Turbulence in the Atmosphere and Ocean (ILWAO)	www.iap-kborn.de/1/teaching/leibniz-graduate-school
INTERNATIONAL MAX PLANCK RESEARCH SCHOOLS (IMPRS)		
○ Berlin	IMPRS Functional Interfaces in Physics and Chemistry	www.imprs-cs.mpg.de
○ Bremen	IMPRS of Marine Microbiology	www.marmic.mpg.de
○ Dortmund	IMPRS in Chemical and Molecular Biology	www.imprs-cmb.mpg.de
○ Dresden	IMPRS for Dynamical Processes in Atoms, Molecules and Solids	www.imprs-dynamics.mpg.de
○ Düsseldorf	IMPRS for Surface and Interface Engineering in Advanced Materials	www.imprs-surmat.mpg.de
○ Göttingen	IMPRS for Physics of Biological and Complex Systems	www.ggnb.uni-goettingen.de/imprs-pbcs
○ Jena	IMPRS Exploration of Ecological Interactions with Molecular and Chemical Techniques	http://imprs.ice.mpg.de/ext
○ Jena	IMPRS for Global Biogeochemical Cycles	www.imprs-gbgc.de
○ Magdeburg	IMPRS for Advanced Methods in Process and Systems Engineering	www.pe-imprs.mpg.de
○ Mainz	IMPRS for Atmospheric Chemistry and Physics	www.imprs.mpic.de

GRADUATE TRAINING

Location	Title	Contact
Mainz	IMPRS for Polymer Materials Science	www.mpip-mainz.mpg.de/12137/IMPRS
Mülheim ... (Ruhr)	IMPRS on Reactive Structure Analysis for Chemical Reactions (RECHARGE)	https://imprs.cec.mpg.de
Potsdam	IMPRS on Multiscale Bio-Systems	http://imprs.mpikg.mpg.de
Stuttgart	IMPRS for Condensed Matter Science	www.imprs-cms.mpg.de



SOCIETIES AND ASSOCIATIONS

IN GERMANY

Arbeitsgemeinschaft Elektrochemischer Forschungsinstitutionen (IVAM): www.ivam.de

German Bunsen Society for Physical Chemistry (DBG): www.bunsen.de

German Catalysis Society (GeCatS): www.gecats.de

German Chemical Society (GDCh): <http://en.gdch.de>

Society for Biochemistry and Molecular Biology (GBM):
www.gbm-online.de/gbm.html

Society for Chemical Engineering and Biotechnology (DECHEMA):
www.dechema.de

The Colloid Society: www.kolloid-gesellschaft.de

Verband der Chemischen Industrie e.V. (VCI): www.vci.de

OPEN POSITIONS

Research in Germany: www.research-in-germany.org/jobs

Fraunhofer Society: www.fraunhofer.de/en/jobs-career

Helmholtz Association: www.helmholtz.de/en/jobs_talent

Leibniz Society: www.leibniz-gemeinschaft.de/en/careers

Max Planck Society: www.mpg.de/jobboard

FURTHER INFORMATION

RESEARCH INSTITUTIONS, PROJECTS, FUNDING, CONTACTS



The “Research in Germany” Portal: Information on research and funding opportunities, academic and research-related job portals, as well as advice on preparing a research stay or initiating a collaboration with German research organisations. www.research-in-germany.org



German Project Information System (GEPRIIS): Online database providing information about all current DFG-funded research projects and contact information for the Principal Investigators. <http://gepris.dfg.de>



The Research Explorer: Information on more than 19 000 institutes at German universities and non-university research institutions, searchable by geographic location, subject and other structural criteria. <http://research-explorer.dfg.de>



Website of the DFG: Further background information about DFG funding programmes, funding guidelines, and lists of currently DFG-funded activities. www.dfg.de



The German Rectors’ Conference (HRK) Research Map: The interactive HRK *Research Map* database provides information on the research priorities that are of strategic institutional importance for each university. www.hrk.de/home (go to → *Research Map*)



The Higher Education Compass: Information on Germany’s higher education institutions, the range of courses and programmes that they offer, their worldwide cooperation, and who to contact locally. www.hochschulkompass.de/en/study-in-germany





Contact

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