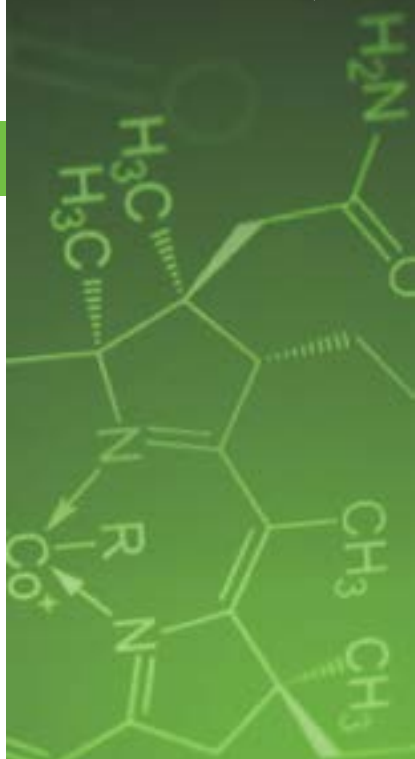




Research in Germany

CHEMISTRY



AN INITIATIVE OF THE



Federal Ministry
of Education
and Research

Research in
Germany



Land of Ideas



Research in Germany

Imprint

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Research.

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.

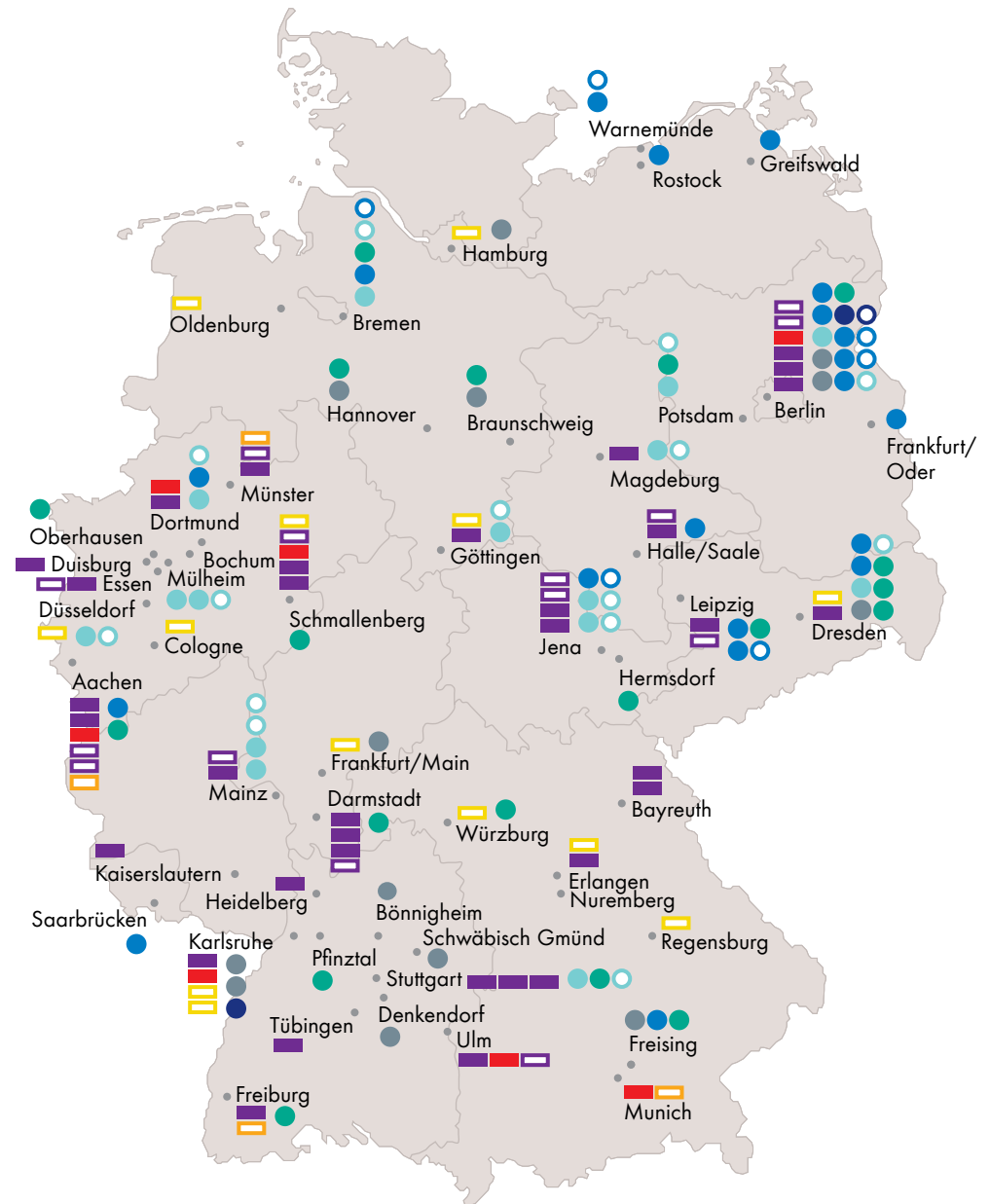
Chemical research in Germany is primarily conducted at universities but also at non-university research institutions. Almost all universities and many universities of applied sciences host a chemical research section. The spectrum ranges from small monothematic working groups to large interdisciplinary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



- ▭ Research Training Groups
- ▭ International Research Training Groups
- ▭ Integrated Research Training Groups in Collaborative Research Centres/Transregios
- ▭ Clusters of Excellence
- ▭ Collaborative Research Centres/Transregios
- Helmholtz Graduate Schools
- Leibniz Graduate Schools
- International Max Planck Research Schools
- Fraunhofer Institutes
- Helmholtz Centres
- Leibniz Institutes
- 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) promote cutting-edge research. They serve to strengthen the research profiles of universities or university consortia in internationally competitive fields. They create excellent training and career opportunities for early career researchers. Within the framework of the Excellence Strategy, they can receive between €3 million and €10 million annually and are funded for seven years, starting in 2019. A second seven-year period is possible.

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	The Fuel Science Center – Adaptive Conversion Systems for Renewable Energy and Carbon Sources (EXC 2186)	2019	www.fuelcenter.rwth-aachen.de
 Berlin	Technische Universität Berlin	Unifying Systems in Catalysis (UniSysCat) (EXC 2008)	2019	www.unisyscat.de
 Bochum Dortmund	Ruhr-Universität Bochum Technische Universität Dortmund	RESOLV (Ruhr Explores Solvation) – Understanding and Design of Solvent-Controlled Processes (EXC 2033)	2019	www.solvation.de
 Karlsruhe Ulm	Karlsruher Institut für Technologie (KIT) Universität Ulm	POLiS – Post Lithium Storage (EXC 2154)	2019	www.postlithiumstorage.org
 Munich/ Garching	Ludwig-Maximilians-Universität München Technische Universität München	e-conversion (EXC 2089)	2019	www.e-conversion.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
 Bayreuth	Universität Bayreuth	MICROPLASTICS – Understanding the Mechanisms and Processes of Biological Effects, Transport and Formation: From Model to Complex Systems as a Basis for New Solutions (CRC 1357)	2018	www.sfb-mikroplastik.uni-bayreuth.de
 Berlin	Freie Universität Berlin	Fluorine-Specific Interactions: Fundamentals and Functions (CRC 1349)	2018	www.sfb1349.de
 Berlin	Freie Universität Berlin	Multivalency as Chemical Organization and Action Principle: New Architectures, Functions and Applications (CRC 765)	2007	www.sfb765.de (DE)

CENTRES OF RESEARCH

Location	Institution	Title	Funded Since	Contact
Darmstadt	Technische Universität Darmstadt	Interaction between Transport and Wetting Processes (CRC 1194)	2016	www.sfb1194.tu-darmstadt.de/sfb_1194
Dresden	Technische Universität Dresden	Chemistry of Synthetic Two-Dimensional Materials (CRC 1415)	2020	https://tu-dresden.de/mn/chemie/sfb1415/
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
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
Mainz	Johannes Gutenberg-Universität Mainz	Nanodimensional Polymer Therapeutics for Tumour Therapy (CRC 1066)	2013	www.sfb1066.uni-mainz.de
Münster	Westfälische Wilhelms-Universität Münster	Synergetic Effects in Chemistry – From Additivity towards Cooperativity (CRC 858)	2009	www.wwu.de/SFB858
Stuttgart	Universität Stuttgart	Molecular Heterogeneous Catalysis in Confined Geometries (CRC 1333)	2018	www.crc1333.de

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 Magdeburg	Technische Universität Berlin Technische Universität Dortmund Otto-von-Guericke-Universität Magdeburg	Integrated Chemical Processes in Liquid Multiphase Systems (InPROMPT) (TRR 63)	2009	www.inprompt.tu-berlin.de
Bochum Duisburg	Ruhr-Universität Bochum Universität Duisburg-Essen	Heterogeneous Oxidation Catalysis in the Liquid Phase – Mechanisms and Materials in Thermal, Electro-, and Photocatalysis (TRR 247)	2018	www.uni-due.de/sfbtrr247
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.nafak2.uni-halle.de/sfbtrr102
Jena Ulm	Friedrich-Schiller-Universität Jena Universität Ulm	Light-driven Molecular Catalysts in Hierarchically Structured Materials – Synthesis and Mechanistic Studies (CatalLight) (TRR 234)	2018	www.catalight.eu
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
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
UNODE – Unusual Anode Reactions (FOR 2982)	2019	www.ruhr-uni-bochum.de/for2982
Adaptive Polymer Gels with Controlled Network Structure (FOR 2811)	2019	www.for2811.uni-mainz.de
Amorphous Molecular Materials with Extreme Non-Linear Optical Properties (FOR 2824)	2018	www.uni-marburg.de/en/fb15/for2824
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 (DE)
Integrated Chemical Microlabs (In-CheM) (FOR 2177)	2015	www.in-chem.de
Nanoporous Gold – A Prototype for a Rational Design of Catalysts (FOR 2213)	2014	www.nagocat.de
Acting Principles of Nano-Scaled Matrix Additives for Composite Structures (FOR 2021)	2014	www.tu-braunschweig.de/en/iaf/news/article/for-2021-acting-principles-of-nano-scaled-matrix-additives-for-composite-structures
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

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
Polymer-based Batteries (SPP 2248)	2018	www.spp2248.uni-jena.de
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
Dispersy-, Structural- and Phase-Changes of Proteins and Biological Agglomerates in Biotechnological Processes (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
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/en/home



Fraunhofer Society is one of the world's leading organisations for applied research with an annual research budget of 2.8 billion euros, 74 institutes and more than 28,000 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 40,000 employees in 19 research centres and an annual budget of approximately 4.8 billion euros, the Helmholtz Association is Germany's largest scientific organisation. www.helmholtz.de

The Leibniz Association is an umbrella organisation of 95 research institutes. The annual budget amounts to 1.9 billion euros. Some 11,500 researchers – approximately 25% 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 2018. A combined total of 15,300 researchers, postdoctoral/junior researchers and visiting researchers at 86 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 -

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 Collaborative Research Centres/Transregios) 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
RESEARCH TRAINING GROUPS				
 Bochum	Ruhr-Universität Bochum	Confinement-Controlled Chemistry (RTG 2376)	2018	www.confinement-controlled-chemistry.de
 Cologne	Universität zu Köln	Template-Designed Organic Electronics (TIDE) (RTG 2591)	2020	tba
 Dresden	Technische Universität Dresden	Hydrogel-Based Microsystems (RTG 1865)	2012	https://tu-dresden.de/ing/elektrotechnik/ife/graduierntenkolleg
 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.grk2158.hhu.de/en.html
 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
 Göttingen	Georg-August-Universität Göttingen	Benchmark Experiments for Numerical Quantum Chemistry (BENCh) (RTG 2455)	2018	www.uni-goettingen.de/en/587836.html
 Hamburg	Universität Hamburg	Hybrid Structures on the Nanoscale: Chemical Concepts to Prepare Heterogeneous Nanostructures with Anisotropic Material Properties – NANOHYBRID (RTG 2536)	2020	www.chemie.uni-hamburg.de/en/forschung/grk-nanohybrid
 Karlsruhe	Karlsruher Institut für Technologie (KIT)	Molecular Architecture for Fluorescent Cell Imaging (RTG 2039)	2014	www.grk2039.kit.edu
 Karlsruhe	Karlsruher Institut für Technologie (KIT)	Tailored Scale-Bridging Approaches to Computational Nanoscience (RTG 2450)	2018	www.compnano.kit.edu


GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Oldenburg	Carl von Ossietzky University Oldenburg	Chemical Bond Activation (RTG 2226)	2017	https://uol.de/graduierntenkolleg-2226
 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	Albert-Ludwigs-Universität Freiburg	Soft Matter Science: Concepts for the Design of Functional Materials (SoMaS) (IRTG 1642)	2010	www.softmattergraduate.uni-freiburg.de
 Strasbourg (France)	Université de Strasbourg			
 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			
 Munich	Technische Universität München	Alberta/TUM International Graduate School for Environmentally Responsible Functional Hybrid Materials (ATUMS) (IRTG 2022)	2015	www.department.ch.tum.de/makro/irtg-2022-atums/overview
 Edmonton (Canada)	University of Alberta			
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: Fluorine-Specific Interactions: Fundamentals and Functions (CRC 1349)	2018	www.sfb1349.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/Graduiertenkolleg(DE)

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 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/en/rtg
 Mainz	Johannes Gutenberg-Universität Mainz	Integrated Research Training Group within: Nanodimensional Polymeric Therapeutics for Tumour Therapy (CRC 1066)	2013	www.crc1066.uni-mainz.de/graduate-school
 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
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	Martin-Luther-Universität Halle-Wittenberg	Research Training Group "Polymers: Random Coils and Beyond" within: Polymers under Multiple Constraints: Restricted and Controlled Molecular Order and Mobility (TRR102)	2011	https://blogs.urz.uni-halle.de/irtgpolymers
 Leipzig	Universität Leipzig			

GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Jena	Friedrich-Schiller-Universität Jena	Integrated Research Training Group within: Light-driven Molecular Catalysts in Hierarchically Structured Materials – Synthesis and Mechanistic Studies (CatalLight) (TRR 234)	2018	www.catalight.eu/irtg-board
Ulm	Universität Ulm			

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/en/forschung/projekte/heimseiten/ilwao/
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

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 (AGEF):
www.wittstock.chemie.uni-oldenburg.de/agef (DE)

German Bunsen Society for Physical Chemistry (DBG): <https://bunsen.de/> (DE)

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

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

Society for Biochemistry and Molecular Biology (GBM):
<https://gbm-online.de/the-gbm.html>

Society for Chemical Engineering and Biotechnology (DECHEMA):
<https://dechema.de/en/>

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-and-career.html

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

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

Max Planck Society: www.mpg.de/jobboard

FURTHER INFORMATION

RESEARCH INSTITUTIONS, PROJECTS, FUNDING, CONTACTS

NOTES



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



German Research Institutions (GERIT): Information on more than 25,000 institutes at German universities and non-university research institutions, searchable by geographic location, subject and other structural criteria. www.gerit.org



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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DFG Deutsche
Forschungsgemeinschaft