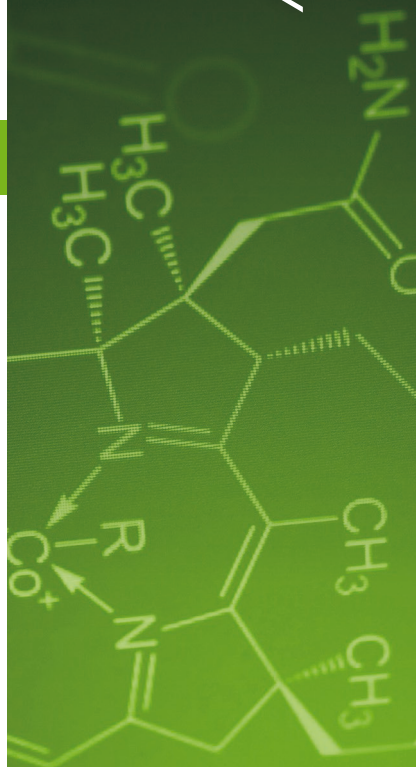




# Research in Germany

# 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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## 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.

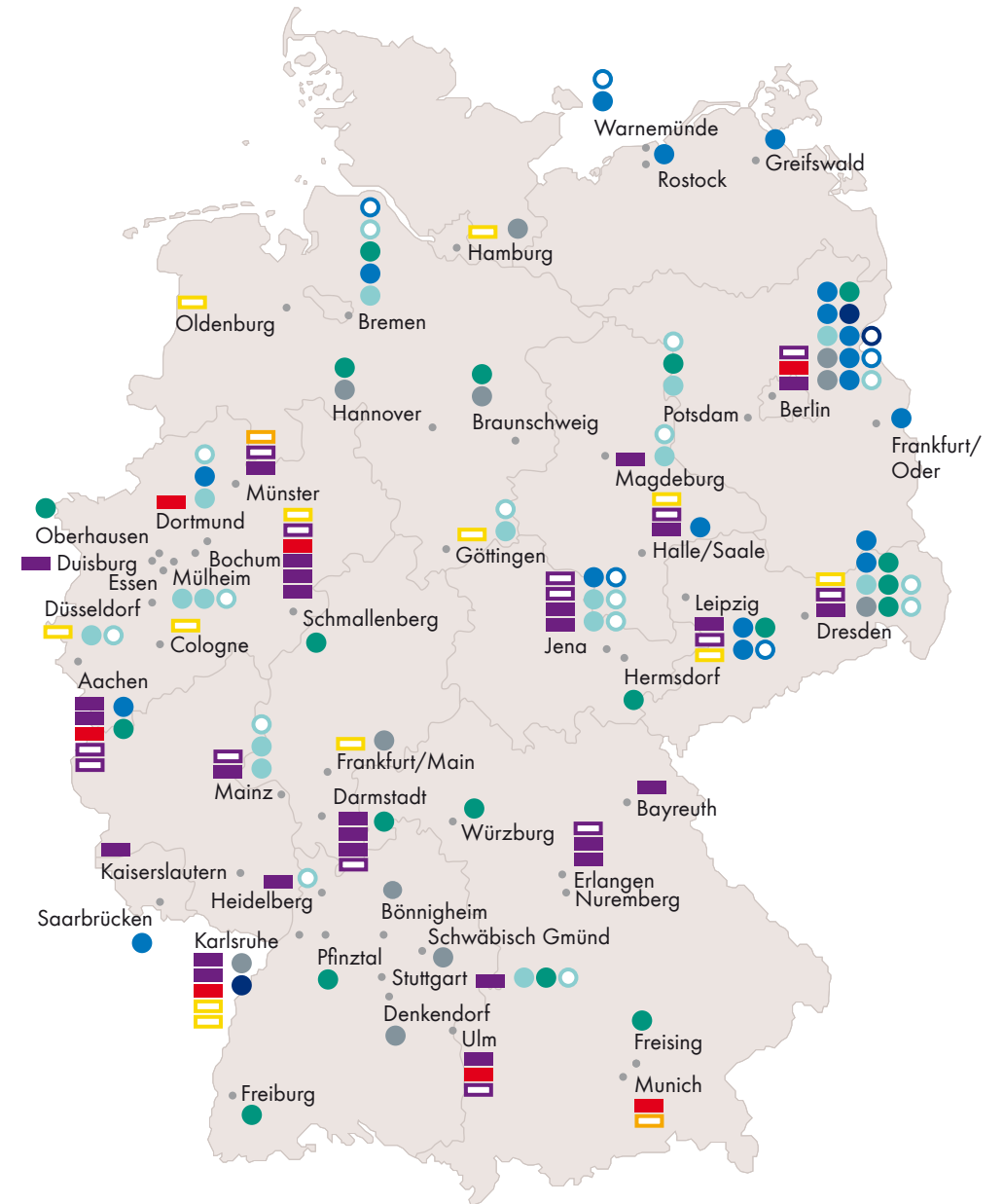
Chemical research in Germany is primarily conducted at universities but also at non-university research institutions. Almost all universities and many universities of applied sciences host a chemical research section. The spectrum ranges from small monothematic working groups to large interdisciplinary 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 GEPRIS 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	 Helmholtz Graduate Schools
 International Research Training Groups	 Leibniz Graduate Schools
 Integrated Research Training Groups in Collaborative Research Centres/Transregios	 International Max Planck Research Schools
 Clusters of Excellence	 Fraunhofer Institutes
 Collaborative Research Centres/Transregios	 Helmholtz Centres
	 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
<b>CLUSTERS OF EXCELLENCE</b>				
 Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	<b>The Fuel Science Center – Adaptive Conversion Systems for Renewable Energy and Carbon Sources (EXC 2186)</b>	2019	<a href="http://www.fuelcenter.rwth-aachen.de/cms/~siul/Fuelcenter/lidx/1/">www.fuelcenter.rwth-aachen.de/cms/~siul/Fuelcenter/lidx/1/</a>
 Berlin	Technische Universität Berlin	<b>Unifying Systems in Catalysis (UniSysCat) (EXC 2008)</b>	2019	<a href="http://www.unisyscat.de">www.unisyscat.de</a>
 Bochum Dortmund	Ruhr-Universität Bochum Technische Universität Dortmund	<b>RESOLV (Ruhr Explores Solvation) – Understanding and Design of Solvent-Controlled Processes (EXC 2033)</b>	2019	<a href="http://www.solvation.de">www.solvation.de</a>
 Karlsruhe Ulm	Karlsruher Institut für Technologie (KIT) Universität Ulm	<b>POLiS – Post Lithium Storage (EXC 2154)</b>	2019	<a href="http://www.postlithiumstorage.org/en/">www.postlithiumstorage.org/en/</a>
 Munich/ Garching	Ludwig-Maximilians-Universität München Technische Universität München	<b>E-Conversion (EXC 2089)</b>	2019	<a href="http://www.e-conversion.de/">www.e-conversion.de/</a>
<b>COLLABORATIVE RESEARCH CENTRES</b>				
 Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	<b>Functional Microgels and Microgel Systems (CRC 985)</b>	2012	<a href="http://www.microgels.de">www.microgels.de</a>
 Bayreuth	Universität Bayreuth	<b>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)</b>	2018	<a href="http://www.sfb-mikroplastik.uni-bayreuth.de">www.sfb-mikroplastik.uni-bayreuth.de</a>
 Berlin	Freie Universität Berlin	<b>Fluorine-Specific Interactions: Fundamentals and Functions (CRC 1349)</b>	2018	<a href="http://www.sfb1349.de/en/index.html">www.sfb1349.de/en/index.html</a>
 Darmstadt	Technische Universität Darmstadt	<b>Interaction between Transport and Wetting Processes (CRC 1194)</b>	2016	<a href="http://www.sfb1194.tu-darmstadt.de/index.en.jsp">www.sfb1194.tu-darmstadt.de/index.en.jsp</a>
 Darmstadt	Technische Universität Darmstadt	<b>Iron, upgraded! (CRC 1487)</b>	2021	<a href="http://www.chemie.tu-darmstadt.de/iron-upgraded/index.de.jsp">www.chemie.tu-darmstadt.de/iron-upgraded/index.de.jsp</a>

## CENTRES OF RESEARCH

Location	Institution	Title	Funded Since	Contact
Dresden	Technische Universität Dresden	Chemistry of Synthetic Two-Dimensional Materials (CRC 1415)	2020	<a href="https://tu-dresden.de/mn/chemie/sfb1415">https://tu-dresden.de/mn/chemie/sfb1415</a>
Erlangen-Nuremberg	Friedrich-Alexander-Universität Erlangen-Nürnberg	Synthetic Carbon Allotropes (CRC 953)	2011	<a href="http://www.sfb953.research.fau.eu/">www.sfb953.research.fau.eu/</a>
Erlangen-Nuremberg	Friedrich-Alexander-Universität Erlangen-Nürnberg	Catalysis at Liquid Interfaces (CLINT) (CRC 1452)	2021	<a href="http://www.sfb1452.research.fau.eu/">www.sfb1452.research.fau.eu/</a>
Heidelberg	Universität Heidelberg	N-Heteropolycycles as Functional Materials (CRC 1249)	2016	<a href="http://www.uni-heidelberg.de/fakultaeten/chemgeo/aci/gade/sfb1249/pages">www.uni-heidelberg.de/fakultaeten/chemgeo/aci/gade/sfb1249/pages</a>
Jena	Friedrich-Schiller-Universität Jena	Polymer-based Nanoparticle Libraries for Targeted Anti-inflammatory Strategies (CRC 1278)	2017	<a href="http://www.polytarget.uni-jena.de/en">www.polytarget.uni-jena.de/en</a>
Karlsruhe	Karlsruher Institut für Technologie	Tracking the Active Site in Heterogeneous Catalysis for Emission Control (TrackAct) (CRC 1441)	2021	<a href="http://www.trackact.kit.edu/">www.trackact.kit.edu/</a>
Mainz	Johannes Gutenberg-Universität Mainz	Nanodimensional Polymer Therapeutics for Tumour Therapy (CRC 1066)	2013	<a href="http://www.crc1066.uni-mainz.de/">www.crc1066.uni-mainz.de/</a>
Münster	Westfälische Wilhelms-Universität Münster	Intelligent Matter (CRC 1459)	2021	<a href="http://www.uni-muenster.de/SFB1459/">www.uni-muenster.de/SFB1459/</a>
Stuttgart	Universität Stuttgart	Molecular Heterogeneous Catalysis in Confined Geometries (CRC 1333)	2018	<a href="http://www.crc1333.de">www.crc1333.de</a>
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	<a href="http://www.oxyflame.com">www.oxyflame.com</a>
Bochum	Ruhr-Universität Bochum			
Darmstadt	Technische Universität Darmstadt			

## CENTRES OF RESEARCH

Location	Institution	Title	Funded Since	Contact
Bochum	Ruhr-Universität Bochum	Heterogeneous Oxidation Catalysis in the Liquid Phase – Mechanisms and Materials in Thermal, Electro-, and Photocatalysis (TRR 247)	2018	<a href="http://www.uni-due.de/sfbtrr247">www.uni-due.de/sfbtrr247</a>
Duisburg	Universität Duisburg-Essen			
Bochum	Ruhr-Universität Bochum	BULK-REACTION – Reacting and Moving Granular Assemblies with Gas Flow (TRR 287)	2020	<a href="https://bulk-reaction.de/">https://bulk-reaction.de/</a>
Magdeburg	Otto von Guericke-Universität Magdeburg			
Halle/Saale	Martin-Luther-Universität Halle-Wittenberg	Polymers under Multiple Constraints: Restricted and Controlled Molecular Order and Mobility (TRR 102)	2011	<a href="http://www.natfak2.uni-halle.de/sfbtrr102">www.natfak2.uni-halle.de/sfbtrr102</a>
Leipzig	Universität Leipzig			
Jena	Friedrich-Schiller-Universität Jena	Light-driven Molecular Catalysts in Hierarchically Structured Materials – Synthesis and Mechanistic Studies (Catalight) (TRR 234)	2018	<a href="http://www.catalight.eu">www.catalight.eu</a>
Ulm	Universität Ulm			
Kaiserslautern	Technische Universität Kaiserslautern	Cooperative Effects in Homo- and Heterometallic Complexes (3MET) (TRR 88)	2010	<a href="http://www.uni-kl.de/3met">www.uni-kl.de/3met</a>
Karlsruhe	Karlsruher Institut für Technologie (KIT)			

## 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
Bioinspired Oxidation Catalysis with Iron Complexes (FOR 5215)	2022	<a href="https://gepris.dfg.de/gepris/projekt/445916766">https://gepris.dfg.de/gepris/projekt/445916766</a>
The Next Generation of Functional Self-healing Materials – Restoration of Optoelectronic and Transport Properties in Flexible Energy Storage and Conversion Materials (FuncHeal) (FOR 5301)	2022	<a href="http://www.ceec.uni-jena.de/woran-forschen-wir/forschungsgruppe-for-5301-funcheal">www.ceec.uni-jena.de/woran-forschen-wir/forschungsgruppe-for-5301-funcheal</a>
CytoLabs – Systematic Investigation and Exploitation of Cytochalasans (FOR 5170)	2021	<a href="http://www.cytolabs-dfg.info/">www.cytolabs-dfg.info/</a>
Energy Landscapes and Structure in Ion Conducting Solids (ELSICS) (FOR 5065)	2020	<a href="http://www.uni-marburg.de/en/fb15/for5065">www.uni-marburg.de/en/fb15/for5065</a>
UNODE – Unusual Anode Reactions (FOR 2982)	2019	<a href="http://www.ruhr-uni-bochum.de/for2982">www.ruhr-uni-bochum.de/for2982</a>
Adaptive Polymer Gels with Controlled Network Structure (FOR 2811)	2019	<a href="http://www.for2811.uni-mainz.de">www.for2811.uni-mainz.de</a>
Amorphous Molecular Materials with Extreme Non-Linear Optical Properties (FOR 2824)	2018	<a href="http://www.uni-marburg.de/en/fb15/for2824">www.uni-marburg.de/en/fb15/for2824</a>
Switchable Metal-Organic Frameworks (MOF-Switches) (FOR 2433)	2016	<a href="http://www.promise.kit.edu/english/index.php">www.promise.kit.edu/english/index.php</a>
Assessing and Controlling Dynamic Local Process Conditions in Microreactors via Novel Integrated Microsensors (FOR 2383)	2016	<a href="https://tu-dresden.de/mn/chemie/ac/ac1/forschung/forschungsgruppe-2433">https://tu-dresden.de/mn/chemie/ac/ac1/forschung/forschungsgruppe-2433</a>
Multi-Scale Analysis of Complex Three-Phase Systems: Oxygen and CO2 Reduction at Silver-Based Gas-Diffusion Electrodes in Aqueous Electrolyte (FOR 2397)	2016	<a href="http://www.for2397.tu-clausthal.de">www.for2397.tu-clausthal.de</a>
Multi-Functional Conversion of Chemical Species and Energy (FOR 1993)	2013	<a href="http://www.uni-due.de/for1993">www.uni-due.de/for1993</a>

## 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
Nitroconversion (SPP 2370)	2022	<a href="http://www.spp2370.uni-bayreuth.de/en">www.spp2370.uni-bayreuth.de/en</a>
Molecular Machine Learning (SPP 2363)	2022	<a href="http://www.uni-muenster.de/SPP2363/">www.uni-muenster.de/SPP2363/</a>
Polymer-based Batteries (SPP 2248)	2020	<a href="http://www.spp2248.uni-jena.de/en">www.spp2248.uni-jena.de/en</a>
Catalysts and Reactors under Dynamic Conditions for Energy Storage and Conversion (SPP 2080)	2018	<a href="http://www.itcp.kit.edu/spp2080/english">www.itcp.kit.edu/spp2080/english</a>
Light Controlled Reactivity of Metal Complexes (SPP 2102)	2018	<a href="http://www.spp2102.uni-mainz.de">www.spp2102.uni-mainz.de</a>
Manipulation of Matter Controlled by Electric and Magnetic Fields: Towards Novel Synthesis and Processing Routes of Inorganic Materials (SPP 1959)	2016	<a href="http://www.fieldsmatter.de">www.fieldsmatter.de</a>
Dispersy-, Structural- and Phase-Changes of Proteins and Biological Agglomerates in Biotechnological Processes (DiSPBiotech) (SPP 1934)	2016	<a href="https://dispbiotech.tu-braunschweig.de/?lang=en">https://dispbiotech.tu-braunschweig.de/?lang=en</a>
Coordination Networks: Building Blocks for Functional Systems (SPP 1928)	2016	<a href="http://www.coornets.tum.de">www.coornets.tum.de</a>





## NON-UNIVERSITY RESEARCH INSTITUTIONS

**Fraunhofer Society** is one of the world's leading organisations for applied research with an annual research budget of 2.9 billion euros, 76 institutes and more than 30,000 employees. Fraunhofer's R&D portfolio covers a wide range of fields, including health, security, communications, transport, energy and the environment. [www.fraunhofer.de](http://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 43,000 employees in 18 research centres and an annual budget of approximately 5 billion euros, the Helmholtz Association is Germany's largest scientific organisation. [www.helmholtz.de](http://www.helmholtz.de)

**The Leibniz Association** is an umbrella organisation of 96 research institutes. The annual budget amounts to 2 billion euros. Some 11,700 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](http://www.leibniz-association.eu)

**The Max Planck Society** for the Advancement of Science is one of Germany's largest independent non-profit research organisations. A combined total of 13,000 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. [www.mpg.de](http://www.mpg.de)

## NON-UNIVERSITY RESEARCH INSTITUTIONS

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

## NON-UNIVERSITY RESEARCH INSTITUTIONS

Location	Institution	Contact
● 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
● 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.leibniz-zmt.de/en/
● 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
● Greifswald	Leibniz Institute for Plasma Science and Technology (INP)	www.inp-greifswald.de/en/
● 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 Engineering (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.cpfs.mpg.de
● Düsseldorf	Max-Planck-Institut für Eisenforschung GmbH (MPIE)	www.mpie.de
● Göttingen	Max Planck Institute for Multidisciplinary Science (MPIBC)	www.mpinat.mpg.de/en
● 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

## NON-UNIVERSITY RESEARCH INSTITUTIONS

Location	Institution	Contact
● 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/2285/en
● Mainz	Max Planck Institute for Polymer Research (MPIP)	www.mpip-mainz.mpg.de
● Mülheim	Max Planck Institute for Chemical Energy Conversion (CEC)	www.cec.mpg.de/en/home
● Mülheim	Max-Planck-Institut für Kohlenforschung (KOFO)	www.kofo.mpg.de
● Potsdam	Max Planck Institute of Colloids and Interfaces (MPIKG)	www.mpikg.mpg.de/en
● 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/Navigation/EN/Home/home.html
● Bönningheim	Hohenstein Institute	www.hohenstein.de
● Braunschweig Berlin	National Metrology Institute (PTB)	www.ptb.de
● Denkendorf	German Institutes of Textile and Fibres Research Denkendorf	www.ditf.de/en/
● Dresden	VKTA – Radiation Protection, Analytics & Disposal Rossendorf Inc. (VKTA)	www.vkta.de
● Frankfurt/ Main	DECHEMA-Research Institute (DFI)	http://dechema-dfi.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	Max Rubner Institute Federal Research Institute of Nutrition and Food (MRI)	www.mri.bund.de/en/home/
● 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	<b>Confinement-Controlled Chemistry (RTG 2376)</b>	2018	<a href="http://www.confinement-controlled-chemistry.de">www.confinement-controlled-chemistry.de</a>
 Cologne	Universität zu Köln	<b>Template-Designed Organic Electronics (TIDE) (RTG 2591)</b>	2020	<a href="http://www.tide.uni-koeln.de/">www.tide.uni-koeln.de/</a>
 Dresden	Technische Universität Dresden	<b>Hydrogel-Based Microsystems (RTG 1865)</b>	2012	<a href="https://tu-dresden.de/ing/elektrotechnik/ife/graduierntenkolleg">https://tu-dresden.de/ing/elektrotechnik/ife/graduierntenkolleg</a>
 Düsseldorf	Heinrich-Heine-Universität Düsseldorf	<b>Natural Products and Natural Product Analogs Against Therapy-Resistant Tumors and Microorganisms: New Lead Structures and Modes of Action (RTG 2158)</b>	2016	<a href="http://www.grk2158.hhu.de/en.html">www.grk2158.hhu.de/en.html</a>
 Frankfurt/Main	Johann Wolfgang Goethe-Universität Frankfurt am Main	<b>Complex Scenarios of Light-Control (CLiC) (RTG 1986)</b>	2014	<a href="http://www.clic.uni-frankfurt.de">www.clic.uni-frankfurt.de</a>
 Göttingen	Georg-August-Universität Göttingen	<b>Benchmark Experiments for Numerical Quantum Chemistry (BENCh) (RTG 2455)</b>	2018	<a href="http://www.hbond.net/bench.html">www.hbond.net/bench.html</a>
 Halle/Saale	Universität Halle-Wittenberg	<b>Beyond Amphiphilicity: Self-Organization of Soft Matter Via Multiple Noncovalent Interactions (RTG 2670)</b>	2021	<a href="http://www.beam.uni-halle.de/">www.beam.uni-halle.de/</a>
 Hamburg	Universität Hamburg	<b>Hybrid Structures on the Nanoscale: Chemical Concepts to Prepare Heterogeneous Nanostructures with Anisotropic Material Properties – NANOHYBRID (RTG 2536)</b>	2020	<a href="http://www.chemie.uni-hamburg.de/en/forschung/grk-nanohybrid/">www.chemie.uni-hamburg.de/en/forschung/grk-nanohybrid/</a>
 Karlsruhe	Karlsruher Institut für Technologie (KIT)	<b>Molecular Architecture for Fluorescent Cell Imaging (RTG 2039)</b>	2014	<a href="http://www.grk2039.kit.edu">www.grk2039.kit.edu</a>
 Karlsruhe	Karlsruher Institut für Technologie (KIT)	<b>Tailored Scale-Bridging Approaches to Computational Nanoscience (RTG 2450)</b>	2018	<a href="http://www.compnano.kit.edu">www.compnano.kit.edu</a>

## GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Leipzig	Universität Leipzig	Hydrogen Isotopes 1,2,3H (RTG 2721)	2021	<a href="http://www.uni-leipzig.de/en/123h">www.uni-leipzig.de/en/123h</a>
 Oldenburg	Carl von Ossietzky Universität Oldenburg	Chemical Bond Activation (RTG 2226)	2017	<a href="https://uol.de/en/grk-2226">https://uol.de/en/grk-2226</a>
INTERNATIONAL RESEARCH TRAINING GROUPS				
 Münster	Westfälische Wilhelms-Universität Münster	New Trends in Molecular Activation and Catalysis (IRTG 2027)	2013	<a href="http://www.uni-muenster.de/Chemie.ac/irtg2027">www.uni-muenster.de/Chemie.ac/irtg2027</a>
Toronto (Canada)	University of Toronto			
 Munich	Technische Universität München	Alberta/TUM International Graduate School for Environmentally Responsible Functional Hybrid Materials (ATUMS) (IRTG 2022)	2015	<a href="http://www.department.ch.tum.de/makro/irtg-2022-atums/overview">www.department.ch.tum.de/makro/irtg-2022-atums/overview</a>
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	<a href="http://www.microgels.rwth-aachen.de/?page_id=805">www.microgels.rwth-aachen.de/?page_id=805</a>
 Berlin	Freie Universität Berlin	Integrated Research Training Group within: Fluorine-Specific Interactions: Fundamentals and Functions (CRC 1349)	2018	<a href="http://www.sfb1349.de/en/MGK/index.html">www.sfb1349.de/en/MGK/index.html</a>
 Dresden	Technische Universität Dresden	Chemistry of Synthetic Two-Dimensional Materials (CRC 1415)	2020	<a href="https://tu-dresden.de/mn/chemie/sfb1415">https://tu-dresden.de/mn/chemie/sfb1415</a>
 Erlangen-Nuremberg	Friedrich-Alexander-Universität Erlangen-Nürnberg	Catalysis at Liquid Interfaces (CLINT) (CRC 1452)	2021	<a href="http://www.sfb1452.research.fau.eu/">www.sfb1452.research.fau.eu/</a>

## GRADUATE TRAINING

Location	Institution	Title	Funded Since	Contact
 Jena	Friedrich-Schiller-Universität Jena	Integrated Research Training Group within: Polymer-based Nanoparticle Libraries for Targeted Anti-inflammatory Strategies (CRC 1278)	2017	<a href="http://www.polytarget.uni-jena.de/en/rtg">www.polytarget.uni-jena.de/en/rtg</a>
 Mainz	Johannes Gutenberg-Universität Mainz	Integrated Research Training Group within: Nanodimensional Polymeric Therapeutics for Tumour Therapy (CRC 1066)	2013	<a href="http://www.crc1066.uni-mainz.de/graduate-school">www.crc1066.uni-mainz.de/graduate-school</a>
 Münster	Universität Münster	Adaptive Nanosystems: Principles and Applications (CRC 1459)	2021	<a href="http://www.uni-muenster.de/SFB1459/mgk/">www.uni-muenster.de/SFB1459/mgk/</a>
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	<a href="http://www.oxyflame.de/program/projects/project-area/project/mgk.html">www.oxyflame.de/program/projects/project-area/project/mgk.html</a>
Bochum	Ruhr-Universität Bochum			
Darmstadt	Technische Universität Darmstadt			
 Bochum	Ruhr-Universität Bochum	BULK-REACTION – Reacting and Moving Granular Assemblies with Gas Flow (TRR 287)	2020	<a href="https://bulk-reaction.de/">https://bulk-reaction.de/</a>
Magdeburg	Otto von Guericke-Universität Magdeburg			
 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	<a href="https://blogs.urz.uni-halle.de/irtgpolymers">https://blogs.urz.uni-halle.de/irtgpolymers</a>
Leipzig	Universität Leipzig			
 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	<a href="http://www.catalight.eu/irtg-board">www.catalight.eu/irtg-board</a>
Ulm	Universität Ulm			

## 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	<a href="https://macrobio.hereon.de/">https://macrobio.hereon.de/</a>
LEIBNIZ GRADUATE SCHOOLS		
○ Berlin	FMP Graduate School	<a href="https://leibniz-fmp.de/fmp-graduate-school/standard-titel-1">https://leibniz-fmp.de/fmp-graduate-school/standard-titel-1</a>
○ Bremen	Leibniz Graduate School on Genomic Biodiversity Research (GBR)	<a href="http://www.zfmk.de/en/research/research-centres-and-groups/graduate-school-gbr">www.zfmk.de/en/research/research-centres-and-groups/graduate-school-gbr</a>
○ Jena	International Leibniz Research School for Microbial and Biomolecular Interactions Jena (ILRS Jena)	<a href="http://www.ilrs.de/">www.ilrs.de/</a>
○ Leipzig	Leibniz Graduate School on Clouds, Aerosols and Radiation: (LGS-CAR)	<a href="http://www.lgs-car.tropos.de">www.lgs-car.tropos.de</a>
○ Warnemünde (Rostock)	International Leibniz Graduate School for Gravity Waves and Turbulence in the Atmosphere and Ocean (ILWAO)	<a href="http://www.iap-kborn.de/en/forschung/projekte/heimseiten/ilwao/">www.iap-kborn.de/en/forschung/projekte/heimseiten/ilwao/</a>
INTERNATIONAL MAX PLANCK RESEARCH SCHOOLS (IMPRS)		
○ Berlin	IMPRS for Elementary Processes in Physical Chemistry	<a href="http://www.fhi.mpg.de/imprs">www.fhi.mpg.de/imprs</a>
○ Bremen	IMPRS of Marine Microbiology	<a href="http://www.marmic.mpg.de">www.marmic.mpg.de</a>
○ Dortmund	IMPRS for Living Matter	<a href="http://www.imprs-lm.mpg.de/">www.imprs-lm.mpg.de/</a>
○ Dresden	IMPRS for Chemistry and Physics of Quantum Materials	<a href="https://imprs-cpqm.mpg.de/">https://imprs-cpqm.mpg.de/</a>
○ Dresden	IMPRS for Dynamical Processes in Atoms, Molecules and Solids	<a href="http://www.imprs-dynamics.mpg.de">www.imprs-dynamics.mpg.de</a>
○ Düsseldorf	IMPRS for Sustainable Metallurgy - from Fundamentals to Engineering Materials	<a href="http://www.imprs-surmat.mpg.de">www.imprs-surmat.mpg.de</a>
○ Göttingen	IMPRS for Physics of Biological and Complex Systems	<a href="http://www.ggnb.uni-goettingen.de/imprs-pbcs">www.ggnb.uni-goettingen.de/imprs-pbcs</a>
○ Heidelberg	IMPRS for Quantum Dynamics	<a href="http://www.mpi-hd.mpg.de/imprs-qd/contact.html">www.mpi-hd.mpg.de/imprs-qd/contact.html</a>
○ Jena	IMPRS Chemical Communication in Ecological Systems	<a href="http://imprs.ice.mpg.de/ext">http://imprs.ice.mpg.de/ext</a>
○ Jena	IMPRS for Global Biogeochemical Cycles	<a href="http://www.imprs-gbgc.de">www.imprs-gbgc.de</a>

## GRADUATE TRAINING

Location	Title	Contact
○ Magdeburg	IMPRS for Advanced Methods in Process and Systems Engineering	<a href="http://www.pe-imprs.mpg.de">www.pe-imprs.mpg.de</a>
○ Mülheim (Ruhr)	IMPRS on Reactive Structure Analysis for Chemical Reactions (RECHARGE)	<a href="https://imprs.cec.mpg.de">https://imprs.cec.mpg.de</a>
○ Potsdam	IMPRS on Multiscale Bio-Systems	<a href="http://imprs.mpikg.mpg.de">http://imprs.mpikg.mpg.de</a>
○ Stuttgart	IMPRS for Condensed Matter Science	<a href="http://www.imprs-cms.mpg.de">www.imprs-cms.mpg.de</a>



## SOCIETIES AND ASSOCIATIONS

### IN GERMANY

Arbeitsgemeinschaft Elektrochemischer Forschungsinstitutionen (AGEF): [www.ivam.com/members/agef\\_ev](http://www.ivam.com/members/agef_ev) (DE)

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

German Catalysis Society (GeCatS): [www.gecats.de](http://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](http://www.kolloid-gesellschaft.de)

Verband der Chemischen Industrie e.V. (VCI): [www.vci.de](http://www.vci.de)

## OPEN POSITIONS

Research in Germany: [www.research-in-germany.org/jobs](http://www.research-in-germany.org/jobs)

Fraunhofer Society: [www.fraunhofer.de/en/jobs-and-career.html](http://www.fraunhofer.de/en/jobs-and-career.html)

Helmholtz Association: [www.helmholtz.de/en/career/job-vacancies/](http://www.helmholtz.de/en/career/job-vacancies/)

Leibniz Society: [www.leibniz-gemeinschaft.de/en/careers/jobs.html](http://www.leibniz-gemeinschaft.de/en/careers/jobs.html)

Max Planck Society: [www.mpg.de/jobboard](http://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](http://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](http://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](http://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](http://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](http://www.hochschulkompass.de/en/study-in-germany)





## Contact

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DFG Head Office Germany  
[www.dfg.de](http://www.dfg.de)  
[researchmarketing@dfg.de](mailto:researchmarketing@dfg.de)

**DFG** Deutsche  
Forschungsgemeinschaft