

## Partners of the Nanotech NRW:

- Prof. Dr.-Ing. Ulrich Hilleringmann  
(University Paderborn, chair of sensors)
- Prof. Dr. Andreas D. Wieck  
(Ruhr-University Bochum, chair of applied solid state physics)
- Prof. Dr.-Ing. Hella-Christin Scheer  
(Bergische University Wuppertal, Department of microstructure technology)
- Dr.-Ing. Klaus T. Kallis  
(TU Dortmund, chair of intelligent microsystems)
- Prof. Dr. Jörg K. N. Lindner  
(University Paderborn, workgroup of nanostructures, nanoanalysis and photonic materials)
- Prof. Dr.-Ing. Peter Glösekötter  
(University of applied sciences Münster, department of electrical engineering and CS)

Contact and further information on  
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[www.nanotech-nrw.de](http://www.nanotech-nrw.de)

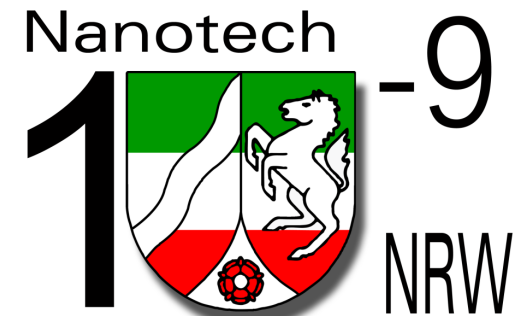


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## Nanotechnologie-Verbund NRW e.V.

*Founded in 2001*

*Non-profit association to promote  
nanotechnologies*



## Nanotechnologie-Verbund NRW e.V.

The Nanotechnology Alliance NRW e.V. is an interdisciplinary group of researchers, developers, and university teachers from the state of North Rhine-Westphalia in Germany to promote the practical application of nanotechnology. Since 2001, the communication platform brought together interested parties from academia, industry and society to exchange views and knowledge on nano-technologies and perform collaborative research and teaching projects.

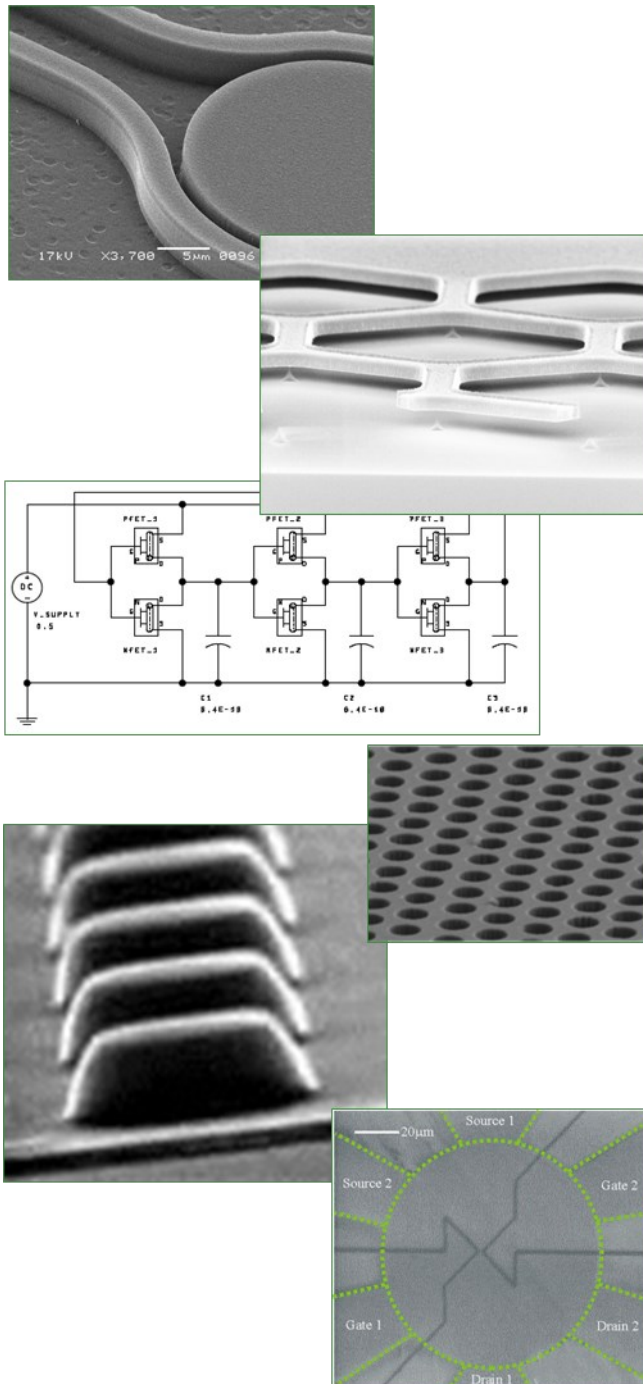
Nanotechnology deals with devices of nanometric scale and takes advantage of special physical phenomena that usually occur only at minimum feature sizes below 100nm.

Nanotechnology is about to become a key technology - like microelectronics and biotechnology – with significant impact on our every day's lives and society. The term nanotechnology encompasses a broad field of research oriented interdisciplinary activities, such as:

- the production of nanostructures
- the manipulation of nanostructures
- the characterization of nanostructures

### Objectives and Activities

- Promote nanotechnology research and teaching
- Interdisciplinary approaches to research and sharing of know-how and equipment
- Development of study and teaching materials for universities and higher education
- Further education
- Organization of research projects
- Development of processes and analytical methods for nanotechnology
- Consulting
- Support for product development
- Organization of workshops



## Partners' fields of research

### SENSOR TECHNOLOGY, Prof. Hilleringmann

- Flexible electronics (organic and nano particles electronics)
- Integrated optics on silicon
- Sensors and sensor electronics

### MBE & FIB, Prof. Wieck

- MBE-Growth of  $\text{In}_x\text{Al}_y\text{Ga}_{1-x-y}\text{As}$ -GaAs heterostructures, quantum wells, lasers, quantum wires and quantum dots
- Material structuring and doping by focused ion beam technology with all elements

### NANOIMPRINT, Prof. Scheer

- Structuring of polymeric surfaces by nanoimprint lithography as well as surface functionalization

### MICRO- AND NANOTECHNOLOGIES, Dr. Kallis

- CMOS-Technology / CMOS compatible nanoscaled devices
- Micromechanical systems (MEMS) and sensors

### NANOSTRUCTURES, Prof. Lindner

- Thin film synthesis and characterization
- Analytical high-resolution transmission electron microscopy (HR-TEM)
- Nano-sphere lithography

### EMBEDDED SYSTEMS, Prof. Glösekötter

- Energy efficient circuit architecture
- Energy self-sufficient sensor systems
- Energy harvesting