



Nano Energy Research at the University of Duisburg-Essen

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CENIDE, the "Center for Nanointegration Duisburg-Essen", represents the appropriate focus of research at the University of Duisburg-Essen (UDE) in Germany: Since 2005, it links research and teaching activities that deal with the nano-dimension, in natural sciences, engineering, and in medicine. In short, CENIDE is the community of nanoresearchers at the UDE – the know-how of more than 60 working groups under guidance of designated experts meets here. Partnerships with external members with similar research approaches strengthen the skills spectrum.

One focus of research is nanoenergy – the use of nanotechnology for energy applications. The research building, "NanoEnergieTechnikZentrum, NETZ" opened in February 2013. It is a so far unique complex for the link between basic research and application-related processing for energy technology: In the "linked facilities", directly interconnected laboratories for engineers, chemists and physicists, nanomaterials will be produced, investigated, and processed immediately for energy applications.

Recent results for several applications including thermoelectrics [1], batteries, catalysis, and LEDs will be presented.

References

1. V. Kessler, D. Gautam, T. Huelser, M. Spree, R. Theissmann, M. Winterer, H. Wiggers, G. Schierning, R. Schmechel, Adv. Eng. Mater. **15**, 379 (2013)







