

INTERNATIONAL EXCELLENCE FELLOWSHIPS

Experience Report 2020/2021

Name and title of fellow	Prof. Eugen Rabkin
Duration and time of research stay	1.08.-30.09.2021
Host professor and host institute at KIT	Prof. Christoph Kirchlechner, Institut für Angewandte Materialien – Werkstoff- und Grenzflächenmechanik

Testimonial

My research field is
Materials Science and Engineering, Mechanical properties of materials at the nanoscale, kinetics of materials.
How my research field is going to affect the world of science?
By understanding the laws of plasticity at the nanoscale we will be able to utilize a vast knowledge accumulated in classical metallurgy in developing the methods of thermomechanical processing of metal nanoparticles and nanostructures. This may enable breakthroughs in such fields as catalysis and nano-photonics.
My main finding / highlight during my research work at KIT was
We have found that, contrary to our expectations, the mechanical compressive strength of Platinum nanoparticles has increased at elevated temperature.
I have chosen the Karlsruhe Institute of Technology because
In my opinion, KIT is currently one of the two leading research institutions in Germany in the field of Materials Science and Physical Metallurgy. Also, I am a fluent German speaker and I truly enjoyed a rich cultural life in Karlsruhe.
If you want to, you can give advice to the next fellows. What should they know about Karlsruhe, KIT and the International Excellence Fellowships program?
The International Excellence Fellowship program provides an excellent opportunity to jump-start a fruitful collaboration with one of the leading research establishments in Germany. Also, the prospective Fellows have to know that Karlsruhe is a biker's paradise.