

Press Release

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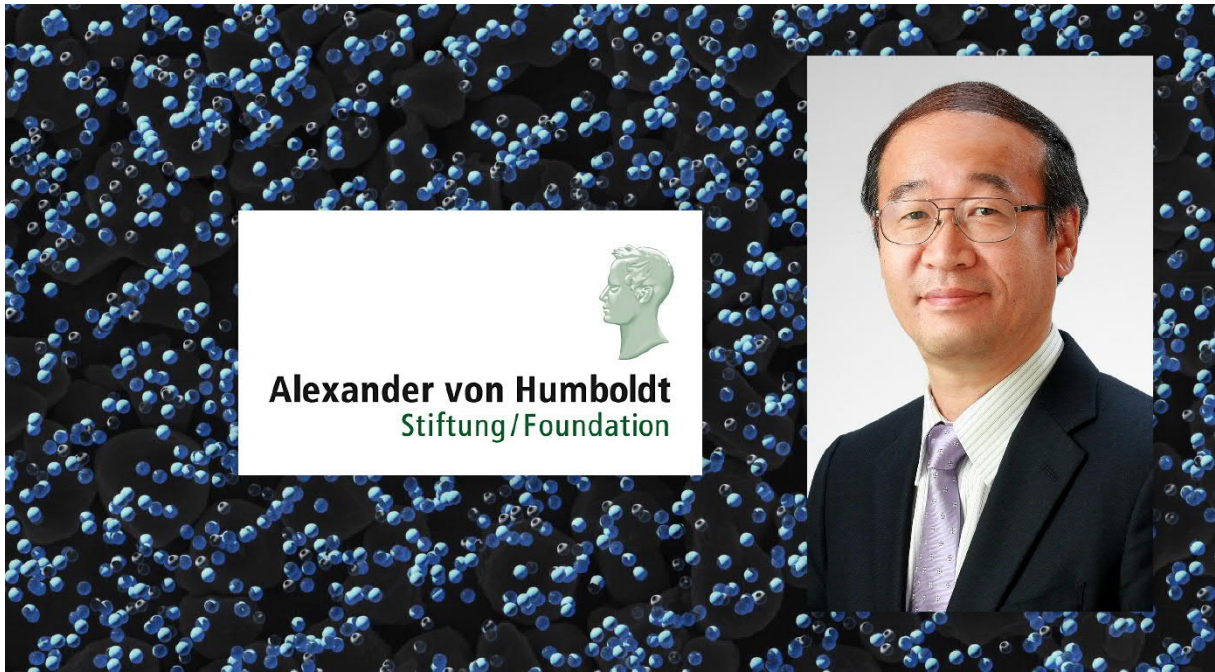
Humboldt Research Award Winner joins the MPIE

Prof. Haruyuki Inui, professor of materials science and engineering from the Kyoto University (Japan), has been granted the Humboldt Research Award in November 2021. This renowned award, endowed with 60,000 euros, is presented annually by the Alexander von Humboldt Foundation to internationally recognized scientists from abroad to support collaborative projects with researchers in Germany. Inui plans several research stays in Germany, and the Max-Planck-Institut für Eisenforschung (MPIE) in Düsseldorf is proud to be one of his host institutions.

“We are most excited to welcome Haruyuki soon at the MPIE. He is a worldwide leading material scientist and expert in crystal mechanics and high-entropy alloys. We will intensify our cooperation with him in both fields.”, says Prof. Dierk Raabe, director of the department “Microstructure Physics and Alloy Design” at the MPIE. Together with Prof. Martin Heilmaier from the Karlsruher Institute of Technology (KIT), Raabe successfully nominated Inui for the Humboldt Research Award.

Inui is also an expert on intermetallic phases which play a significant role in the development of new types of structural materials for extreme environmental conditions, e.g. in the field of combustion processes. For decades, the fundamental research work at Kyoto has been trend-setting for worldwide research in this field, which eventually enabled the commercial use of TiAl-based materials in aircraft engines. The main topic of his research is the experimental investigation of the deformation of metallic and intermetallic materials from the nano- up to the macro-scale. In doing so, he spans the range from complex iron- and cobalt-based superalloys to novel intermetallic phases and so-called high entropy alloys – in the materials science and engineering community currently a hot topic to which the award winner has also contributed substantially.

Inui plans to spend his stay associated with the Humboldt Research Award in Germany beginning in 2022, at the MPIE, the KIT, the Ruhr-Universität Bochum and the University Bayreuth.



Prof. Haruyuki Inui from the Kyoto University (Japan) has been granted the Humboldt Research Award in November 2021 and will visit amongst others the Max-Planck-Institut für Eisenforschung to do research about high-entropy alloys and crystal mechanics. Image: Max-Planck-Institut für Eisenforschung GmbH

The international team of the Max-Planck-Institut für Eisenforschung conducts advanced basic materials research for the fields of mobility, energy, infrastructure, medicine and digitalisation. The focus lies on nanostructured metallic materials as well as semiconductors, which are analysed down to their atomic and electronic scales. This enables the MPIE team to develop new, tailor-made structural and functional materials embracing their synthesis and processing, characterization and properties, as well as their response in engineering components exposed to real operating environments.

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