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Prof. Helmut Riedl-Tragenreif

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Prof. Helmut Riedl is Assistant Professor in Surface Engineering at the Technische Univeristät Wien, Austria. He obtained his PhD in 2015 at the TU Wien and is currently in the final phase of his habilitation with the title 'Selected aspects in the design of ceramic-based protective coatings'. He heads the Applied Surface and Coating Technology research group at the Institute of Materials Science and Technology, TU Wien. The main focus of his research is to establish scientific fundamentals in the experimental but also theoretical exploration of novel coating materials grown by plasma-assisted vapor deposition techniques. In detail, surface protection of highly stressed components – i.e. in aviation, automotive industry, or energy production also containing green power generation – for achieving new applicable operating ranges as well as enabling new technological approaches (i.e. green technologies) outlines his research focus. On the race for new phase and coating materials, transition metal borides and carbides based coating materials have been in the focus in the last years. In addition, he is also dedicated to advanced characterization techniques such as atom probe tomography (APT), transmission electron microscopy, or micro-mechanical testing.