

Einladung zum GDCh-Colloquium des Ortsverbandes Hannover

Das Colloquium findet um 17c.t. im Kali-Chemie-Hörsaal (Raum 202, Geb. 2501) der Leibniz Universität Hannover, Anorganische und Technische Chemie, Callinstr. 9, 30167 Hannover statt.

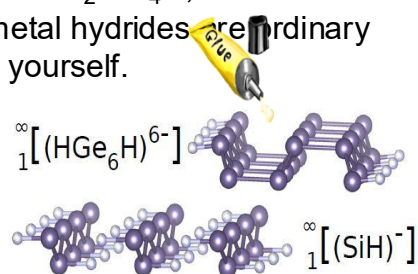
Rudolf-Hoppe-Vorlesung der Gesellschaft Deutscher Chemiker
auf Vorschlag der Fachgruppe Festkörperchemie & Materialforschung

17.07.2025 **Prof. Dr. Holger Kohlmann,**

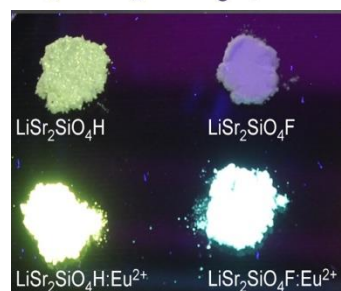
Universität Leipzig, Institut für Anorganische Chemie - Funktionsmaterialien

Metal Hydrides – (Extra)Ordinary Solids

Metal hydrides are often thought of as somewhat exotic compounds. In this lecture, we will explore the provocative claim that they are instead the most common compounds imaginable. You will be taken on a journey through the periodic table of the elements, focusing on lesser-known metal hydride chemistry: hydrides of Zintl phases such as $AeTt$ ($Ae = Ca, Sr, Ba$; $Tt = Si, Ge, Sn$) with the formation of $Tt-Tt$ and $Tt-H$ bonds in the solid, high-pressure phases with $[SiH_6]^{2-}$ moieties, palladium- and nickel-rich hydrides such as $Pd_3BiH_{0.2}$ and $Ni_3SnH_{0.9}$ with a strong structure-directing effect of hydrogen for catalysis, photochromic heteroanionic hydrides such as $HoHO$ and $Y_2H_{0.5}O_{2.75}$ and air-stable ionic hydrides like $LiSr_2SiO_4H$, which are versatile hosts for $Eu(II)$ based luminescence. Whether metal hydrides are ordinary or extraordinary compounds – you will have to decide for yourself.



Prof. Dr. Jens-Uwe Grabow
Vorsitz OV Hannover



Vor dem Colloquium findet ab ca. 16 c.t. eine ‚Kaffeerunde‘ mit dem Vortragenden in der Bibliothek des Instituts für Physikalische Chemie, Callinstr. 3A statt.