Powder metallurgy - the guest of honour in Reutte.

Can metal layers make television pictures even sharper? How can powder metallurgy contribute to the economical production of fuel cells? And how does molybdenum keep a cool head even when used in high-performance LEDs? When the worlds of research and industry meet in Reutte, the focus is on the role of powder metallurgy in the technologies of the future.

Every four years since 1952, the Plansee Group has been inviting guests to the world’s largest industry conference for the powder metallurgical production of high-performance materials – the Plansee Seminar.
Participants from 35 nations.

Approximately 500 researchers and users are present when the leading figures from the world of powder metallurgy present their previously unpublished research results. We would be delighted to be able to welcome you among our guests at the next Plansee Seminar. You can look forward to high-level scientific presentations, a stimulating accompanying program of events and plenty of opportunity to discuss technological developments with your colleagues from the sector. To get into the mood, we want to show you some nice pictures of the Plansee Seminar 2017.

Some impressions from the 19th Plansee Seminar.

You want to find out more?

Please visit [www.plansee-seminar.com](http://www.plansee-seminar.com). Or just contact us! Andreas Pilz is looking forward to hearing from you: [andreas.pilz@plansee.com](mailto:andreas.pilz@plansee.com)

A taste of what's available. Take a look.

Numerous renowned researchers submit their work to ensure the success of a scientific gathering at the forefront of technology. And of course, our employees also contribute their latest research results to the discussion. We are happy to present some of our contributions to the last four Plansee Seminars:
2017.

- Molybdenum and tungsten in sapphire crystal growth industry
- Carbon doping - A key for the substitute of thoriated tungsten
- Fundamental analysis of the influence of powder characteristics in selective laser melting of molybdenum based on a multi-physical simulation model
- Molybdenum-copper-composites for the advanced thermal management of modern electronics
- Numerical simulation of the entire production route of refractory metals from powder to a sintered metal part
- CFDEM modelling of particle heating and acceleration in cold spraying
- A method for measuring the high temperature emissivity of refractory metal surfaces
- Non-destructive measurement of the tungsten content in the binder phase of tungsten heavy alloys
- Rotary friction welding of molybdenum components
- The impact of reduction conditions on molybdenum morphology
- Ti-Al-N/Mo-Si-B multilayers: An architectural design for high temperature oxidation resistant hard coatings

2013.

- Long term behavior and new applications for Sibor® coating (oxidation protection for molybdenum)
- New design solutions for thermal insulation systems for high-temperature furnaces
- Optimization of the surface structure of heating filaments with regard to their apparent thermal emissivity
- Microstructural features of switched Cu-Cr surface melt layers
- Electromechanical corrosion of molybdenum electrodes in soda-lime glass containing antimony
- Corrosion of molybdenum in cooling water
- Studying target erosion in sputtering magnetrons using a discrete numerical model
- Tungsten heavy alloys for collimators and shieldings in the x-ray diagnostics
- Substitution of thoria additions by lanthanum-oxide doping in electrodes for atmospheric plasma spraying
- Thermal stability and oxidation resistance of TiAlN-TaAlN multilayer coatings
2009.

- Fracture Toughness of Polycrystalline Tungsten Alloys
- Influence of Cross Rolling and Heat Treatment on Texture and Forming Properties of Molybdenum Sheets
- Influence of Processing on the Microstructure and Mechanical Properties of Mo-Si-B Alloys
- Investigation of Solid Solution Hardening in Molybdenum Alloys
- Joining of Refractory Metals and its Application
- Near Net Shape Manufacturing of CuCr Vacuum Switching Contacts without Prototyping
- Numerical and Experimental Fracture Mechanics Based Optimization of the Crack Resistance of Carbon / Carbon to Copper Interfaces
- On the Recrystallization Behavior of Technically Pure Molybdenum
- Oxidation of Sputtered Thin Films of Molybdenum Alloys at Ambient Conditions
- PM Processing of ODS Cr- and FeCr-based alloys for Solid Oxide Fuel Cell Applications
- Process Control by Means of Non Destructive Ultrasonic Testing of Complex WCu Contact Components for Energy Transmission and Distribution
- The Corrosion Behaviour of Refractory Metals against Molten and Evaporated Zinc

2005.

- Development of a Low Temperature Solid HIP Process for Joining CFC Monoblocks onto CuCrZr Tubes
- Microstructure and Mechanical Properties of Si and Y doped Tantalum
- Niobium as Mint Metal: Production - Properties - Processing
- Non Destructive Testing along the Manufacture of High Heat Flux Components for the Nuclear Fusion Experiment Wendelstein 7-X
- Numerical Simulation of Manufacturing Routes for Nuclear Fusion Divertor Components
- PM Processing of ODS Cr- and FeCr-based alloys for Solid Oxide Fuel Cell Applications
- Properties of the SIBOR® Oxidation Protective Coating on Refractory Metal Alloys
- WCAl Contact Materials with Improved Homogeneity

- Simulation of Hot Forming Processes of Refractory Metals using Porous Metal Plasticity Models
- Finite Element Analysis of X-Ray Targets