REFRACTORY SILICIDES – MATERIALS FOR HIGHEST TEMPERATURES

Manufacturing
Powder-metallurgical production of refractory silicides (Mo-, W-, Nb-based) and silicide composites (SiC-, Al₂O₃-additives) via:
- High-energy milling
- Conventional densification
- Reaction sintering, hot pressing
- Spark plasma sintering

Properties
- Excellent high-temperature strength
- High thermal conductivity
- Excellent oxidation and corrosion resistance
- Application temperature up to 1,800 °C

Applications
Components for power and environmental engineering:
- Heat shields
- Slag filter
- Linings
- Burner nozzles
- Heat exchangers

High-temperature applications
- Heaters
- Nozzles and pipes
- Mechanical testing

Coatings
- Powder for thermal spraying