An overview of thick tungsten coating prepared by chemical vapor deposition and manufacture of relevant mockup

Thermal conductivity (TC) The CVD-W based monoblock and thermal fatigue testing

- CVD-W coatings showed excellent TC, good thermal shock performance, higher D permeability, mitigated blistering and low D retention behavior.
- The surface degradation induced by steady-state and transient heat flux exhibited a strong grain orientation dependence.
- Practicality of the preparation of large-scale CVD-W based mockups/monoblocks has been demonstrated.