Div-III -Solid tungsten divertor for ASDEX Upgrade

- 2007-2013 ASDEX Upgrade operation with tungsten coated graphite
- 2013 installation of a new divertor, Div-III:
  - solid tungsten plates (15 mm thick) as target.
  - a geometry with increased conductance to the cryo pump resulting in lower edge collisionality.
  - implementation of a large divertor manipulator for
    - physics investigations and
    - test of actively cooled components (up to 230°C, 40 bar, mass flow 2 l/s)
- 2014 - One campaign of operation with up to P*sep*/R = 15 MW/m and 100 MJ heating energy.
  - Safe operation
    - Inspection of divertor tiles by retracting them with the manipulator shows cracks at the surface as expected for the adiabatic mode of operation.
    - Misalignment of a divertor module due to induced currents during a disruption results in a leading edge. Strong local overload - no performance degradation of the plasma.
    - Metallographic analysis is in Progress.