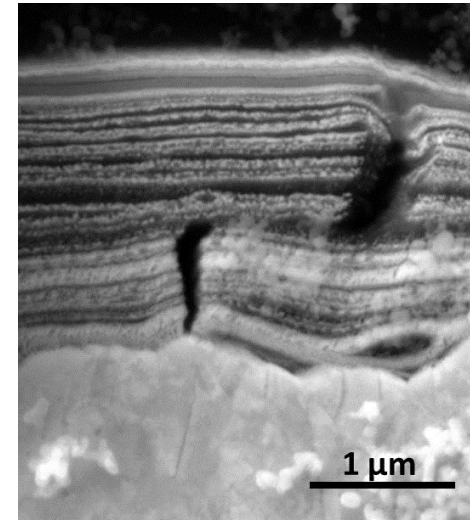


Overview of Fuel Inventory in JET with the ITER-Like Wall

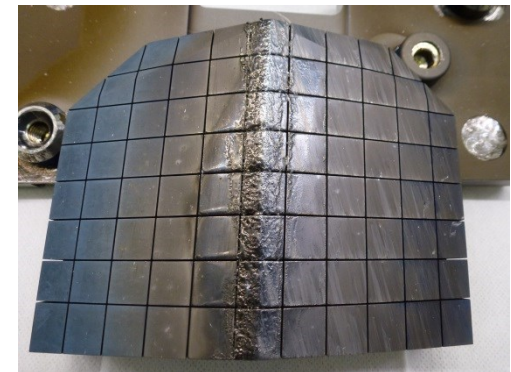
MPT/1-3



- *Post mortem* analysis of JET components has provided the first fuel retention and material migration for the JET ITER-like wall (JET-ILW); an all metal wall in the largest tokamak in operation.
- Following the first JET-ILW campaign global fuel retention was $\sim 0.2\%$ of injected fuel (deuterium) – at least an order of magnitude lower than the carbon wall configuration.
- Retention is still dominated by co-deposition on plasma facing surfaces; however recessed & remote regions and gaps contribute to retention due to large areas involved.
- Future work will continue to evaluate fuel retention and material migration in JET-ILW; however analysis will also investigate the influence of melting on fuel retention, metallography of components under high heat loads and monitor the production of dust.



Cross section showing an example of layered deposit on JET divertor tile.



Melting on ridge of upper dump plate beryllium tile.