POSTER EXPOSITION

UNIVERSITY OF BIRMINGHAM

Poster 1

Characterisation of Nuclear Fusion Materials

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ABSTRACT:
Iron-chromium (FeCr) based ferritic and ferritic-martensitic steels are among top candidates being developed as structural materials for future nuclear fusion reactors, including the UK designed Spherical Tokamak for Energy Production (STEP). One important property of these steels is the ductile-brittle transition temperature (DBTT). Radiation increases this temperature, which could then affect the structural integrity of the reactor. This poster will present the initial data on using in situ x-ray synchrotron tensile testing techniques to study the DBTT of Eurofer97 steel.

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