

ISIS-II Target Concept Development

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Conceptual design studies are now underway for ISIS-II, the successor to the UK's pulsed neutron and muon source. Appropriate target technologies must be selected for each of the two proposed neutron target stations, to achieve a balance between neutronic performance and engineering reliability.

This talk will present the status of preliminary designs for both stationary and rotating target concepts for ISIS-II. Safe operating limits must be defined for direct beam on target, as well as residual decay heat in a Loss of Coolant Accident (LOCA) scenario. Irradiated material properties are a key design driver, as are oxidation properties of tantalum and tungsten. Alternative choices for core and cladding materials will also be discussed.

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Session Classification: Application of new materials data and/or safety codes, computational modelling/analysis

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