



Contribution ID: 9

Type: **not specified**

Manufacture and modelling of advanced UB₂ fuel

Thursday 7 November 2019 08:30 (30 minutes)

The manufacture and modelling of UB₂ has been carried out to understand its suitability for use as a fuel within light water reactors. Density functional theory methods have been used to understand the materials thermal properties and response to radiation, fission product accommodation and impurities. This theoretical work has been combined and elevated with a targeted experimental programme highlighting synthesis routes for UB₂ and the related ZrB₂ compounds and providing experimental data to validate and verify the theoretical predictions.

Authors: MIDDLEBURGH, Simon (Bangor University); Mr MARTINI, Fabio (Bangor University); Dr EVITTS, Lee (Bangor University); IPATOVA, Iuliia (Bangor University)

Co-authors: Mr PUIDE, Mattias (Westinghouse Electric Sweden AB); Dr CLAISSE, Antoine (Westinghouse Electric Sweden AB); Dr MICHAEL, Rushton (Bangor University); Prof. LEE, William (Bangor University)

Presenter: IPATOVA, Iuliia (Bangor University)

Session Classification: Session 9