

Technical Meeting on Advanced Technology Fuels: Progress on their Design, Manufacturing, Experimentation, Irradiation, and Case Studies for their Industrialization, Safety Evaluation, and Future Prospects

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Integral Irradiations and Post-Irradiation Examinations of ATF Concepts Performed at Idaho National Laboratory

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INTRODUCTION: In recent years, Idaho National Laboratory (INL) has performed both irradiation and post-irradiation examination (PIE) tests to support development and deployment of advanced technology fuel (ATF) concepts. The paper overviews test irradiations under pressurized water reactor (PWR) conditions at both commercial and test reactors. PIE was performed on rodlets fabricated by Framatome and irradiated in the ATF-2 water loop at INL's advanced test reactor (ATR), as well as on lead test rods fabricated by Westinghouse and irradiated at the Byron generating station. Selected results from both are presented here.

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