6th RaDIATE Collaboration Meeting



Contribution ID: 21 Type: Oral presentation

Microstructural Characterisation of Four Grades of Fine Grain Graphite over Multiple Length-scales

Monday, 9 December 2019 14:50 (25 minutes)

Abstract

High power particle production targets are key for current and future generation accelerator driven facil:

In collaboration with U.S. Fermi National Accelerator Laboratory under international RaDIATE programme, References

- [1]. Krishna R, Wade J, Jones AN, Lasithiotakis M, Mummery PM, Marsden BJ. An understanding of lattice strain, defects and disorder in nuclear graphite. Carbon. 2017; 124:314-333
- [2]. Kelly B, Burchell T. Structure-related property changes in polycrystalline graphite under neutron irradiation. Carbon. 1994;32(3):499–505.
- [3]. Brocklehurst J, Kelly B. The dimensional changes of highly-oriented pyrolytic graphite irradiated with fast neutrons at 430 C and 600 C. Carbon. 1993;31(1):179–183.
- [4]. Krishna R, Jones AN, McDermott L, Marsden BJ. Neutron irradiation damage of nuclear graphite studied by high-resolution transmission electron microscopy and Raman spectroscopy. Journal of Nuclear Materials. 2015; 467:557 –565.
- [5] Liu D, Gludovatz B, S Barnard H, Kuball M, Robert O R. Damage tolerance of nuclear graphite at elevated temperatures. Nature Communications. 2017 6:8.

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Session Classification: 2nd Oral session