Physics of fundamental Symmetries and Interactions - PSI2016



Contribution ID: 260 Type: Oral

PULSTAR UCN source: studying solid deuterium growth and evolution

Wednesday 19 October 2016 17:30 (20 minutes)

Solid deuterium is one of the two practical choices for making UCN convertors at modern UCN sources. The quality of the solid deuterium (SD2) crystal is crucial for obtaining a high UCN yield. The growth of deuterium was intensively studied for small targets in fusion and neutrino mass experiments, also in a somewhat larger size in preparation for the operation of the PSI UCN source. At PULSTAR we are able to study deuterium growth in a full-sized cryostat. A summary of the results of recent runs will be presented.

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Session Classification: We - 4

Track Classification: Advanced muon and ultracold neutron sources