

Département de Physique Nucléaire
SÉMINAIRE

Vendredi 14/02/2020, 11:00

CEA Saclay, Orme des Merisiers Bat 703, p 45

Study of neutron rich Boron and Carbon isotopes in the
vicinity of the neutron drip-line

Sylvain Leblond

GANIL

The study of the neutron dripline has been of major interest for nuclear Physics during the last decades. As the isotopes come closer to this limit of existence, new exotic phenomena arise (such as halo nuclei) and the nuclear structure evolves dramatically with the appearance of new magic numbers. The study of the neutron drip line was so far limited to very light nuclei (up to Beryllium) but the advent of the RIKEN beams in early 2010 open the path for spectroscopy of heavier nuclei. In this context the SAMURAI DayOne campaign, performed in 2012, has provided valuable data to investigate the isotopes of Boron, Carbon, Nitrogen and Oxygen located before and after the neutron dripline. In the present work, we present an invariant mass study of boron and carbon very neutron rich isotopes using complementary neutron and proton knock-out probes. We will first describe the experimental setup and introduce the analysis techniques. The results will be discussed with comparison with theoretical expectations to propose interpretation. The talk will be concluded by the prospects for new experiments and future developments.

Le cafe sera servi 10 minutes avant

Contact : loic.thulliez@cea.fr - Tel : +33 1 69 08 74 53

http://irfu.cea.fr/dphn/Phocea/Vie_des_labos/Seminaires/index.php