

Nuclear Safety and Technology Public Seminar

Boron Neutron Capture Therapy (BNCT)

Dr Ren-Tai Chiang, ANS Fellow
General Manager, Energy Engineering Service

Date: 25 Jan 2019 (Friday)
Time: 6:30pm– 7:30 pm
Venue: Room 1610, Li Dak Sum Yip Yio Chin Academic Building,
City University of Hong Kong, Kowloon Tong
Registration: On-line free registration is via,
<https://www.hkarms.org/Registration/EventRegister.php?Event=92> (on a first-come-first-served basis)

For enquiries, please contact Dr Louis Liu, info@hkns.hk

Abstract

Boron Neutron Capture Therapy (BNCT) is a therapeutic technique that utilizes energetic alpha particles and back-to-back recoiled Li ions from boron (^{10}B) neutron capture reactions for cancer patient treatment. Alpha particle and Li ion have a combined range in tissue of 12-13 μm (comparable with cellular dimensions) and total kinetic energy of 2.33 MeV. BNCT treats local invasive malignant tumors such as primary brain tumors and recurrent head and neck cancer.

The direct and indirect ionizing radiation sources for BNCT are identified. Mechanism of physical, chemical and biological radiation interactions for BNCT are systemically described and analyzed.

Attendance/CPD Certificate will be provided

Supporting Organisations