

การเปรียบเทียบระหว่างกันในปี 2559 สำหรับ HP (10) และ HP (0.07) ในปริมาณรังสีส่วนบุคคล
บนสนามโฟตอนและเบต้าในภูมิภาคเอเชียตะวันออกเฉียงใต้และเอเชียตะวันออก
INTERCOMPARISON IN 2016 FOR PERSONAL DOSE EQUIVALENT HP(10) AND
HP(0.07) ON PHOTON AND BETA FIELDS IN SOUTHEAST AND EAST ASIA REGION

ช่วงเวลาดำเนินการ ปี พ.ศ. 2559

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รายละเอียดสรุป

Optical Stimulated Luminescence (OSL) technology which used for passive personal dosimetry has become illustrious among an Individual Monitoring Services (IMS) laboratory in Southeast and East Asia region. The OSL dosimeter evaluated in term of Hp(10), Hp(0.07) and Hp(3) is based on whole body dose algorithm accredited by National Voluntary Laboratory Accreditation Programme (NVLAP). The intercomparison is a crucial procedure for assessing the performance of OSL dosimeters used in IMS laboratory according to ISO 17025. The objective of this intercomparison programme aimed to reveal confidence between measured dose from IMS laboratories and true dose from the Secondary Standard Dosimetry Laboratory (SSDL), Office of Atoms for Peace (OAP) . Fifteen laboratories from nine countries in Southeast and East Asia region participated in this programme. The programme has been designed for the comparison of Hp(10) and Hp(0.07) for Inlight OSL. The dosimeters were irradiated at beam qualities of Cs-137 for the deep dose (Hp(10)) and Sr-90 for the shallow dose (Hp(0.07)). The results showed the performance of the personal dose equivalent evaluation for Hp(10) and Hp(0.07) in photon and beta fields in terms of compliance with the trumpet curve. The intercomparison programme will be continued on a regular basis to develop the quality management system and to develop the Personal Dosimetry Network of IMS laboratories in Southeast and East Asia region.

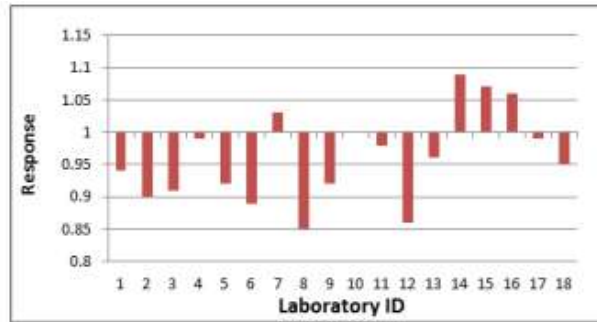
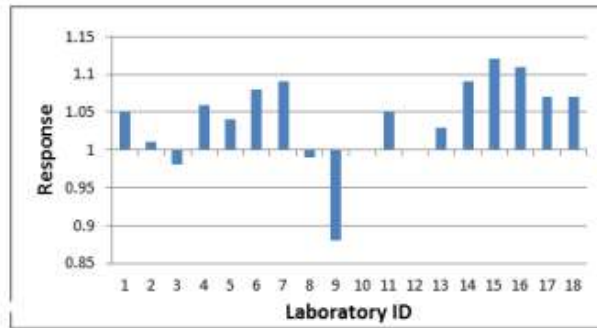


Fig. 1 Response factor of known dose for Cs-137 dose with 0 degree incidence angle.



Response factor of known dose for Sr-90 dose with 0 degree incidence angle.

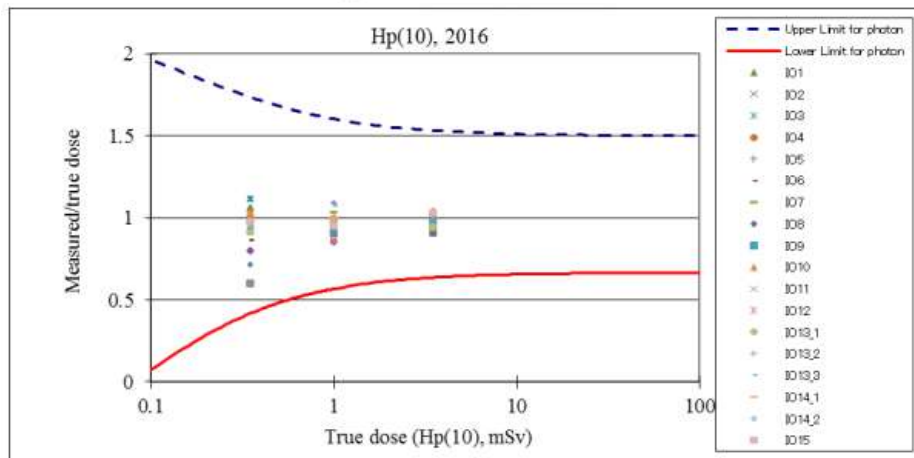


Fig. 3 The trumpet curve of response factor versus the true dose for Hp(10)

