

The impact of permanent magnetic fields on photomultiplier HAMAMATSU R7899-20,

Friday, 14 October 2016 15:15 (30)

The influence of a permanent magnetic field strength of up to 40 Gs to work PMT HAMAMATSU R7899-20 with its regular magnetic screens and without them is investigated. This PMT is used in a hadron calorimeter of LHCb experiment at CERN. It is shown that the use of a protective housing made of steel in joint its use with Permalloy screen significantly reduces screening efficiency. It proposed to use a protective housing made from non-magnetic material (duralumin) electrolytic coated with a multilayered film as magnetic shield. This solution can be used in a hadron calorimeter, the CERN installations SHiP.

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Session Classification : Poster session - VI

Track Classification : Methods of experimental physics