

0.1 - 50 μm thin CsI:Tl scintillation screens with high spatial resolution were prepared by the thermal deposition method for X-ray imaging applications. The spatial resolution was measured as a function of the film thickness and deposition temperature and reached 1 μm . The screens is also used for the monitoring of the transverse profile of muonic beams. It was proposed that the spatial resolution of the prepared conversion screens can be significantly improved by an additional deposition of a carbon layers.