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【727】Recent advances in MicroScint beam profiler technology

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This work illustrates recent advances based on MicroScint, a technology aimed to realize a beam transverse profiler with high spatial resolution based on a microfluidic device. The active area consists in a silicon microfabricated structure filled with an organic liquid scintillator, with spatial resolution down to 30um. We also developed scintillating resin-based devices, obtained through PDMS moulds, which allows 2D tracking of particles, with spatial resolution of ˜15um. The developed detectors are designed to suit all types of proton or heavy ion accelerators. The detectors can also be used for dosimetry, X-ray imaging or for fundamental physics experiments for providing a novel tool for wave function manipulation and control.

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