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Rep-rated operation of laser-plasma accelerator for dosimetry and gamma-ray generation.

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We present recent results concerning repetitive operation of a laser-driven electron beam-line in the self-injection regime to deliver a stable, high charge electron bunch in the 20 MeV energy range. We describe the main properties of the acceleration regime and we show recent experimental results concerning the dosimetry carried out for radiobiology tests of direct electron beam irradiation and the generation of gamma-rays for calibration of detectors and imaging applications.

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