

High repetition rate, low noise and wavelength stable OPCPA laser system with highly efficient broadly tunable UV conversion for FEL seeding

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We present the concept and first results of a novel OPCPA system with highly-efficient, broadly-tunable UV conversion for XUV/VUV FEL seeding. The start-to-end simulation allows to predict the system performance regarding tunability, beam-quality, stability and pointing, depending on the measured input parameters and fluctuations of the high-power CPA pump laser.

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