Extreme Light's Modernistic Applications



Contribution ID: 27 Type: not specified

Intense Laser Plasma Interactions at UCI

Wednesday 6 July 2016 14:30 (30 minutes)

At the newly formed Laser Plasma Interactions group at UCI, a wide variety of unique laser capabilities is becoming available for use. The 3000 square foot lab is equipped with HEPA filtering and temperature/humidity stability to ensure robust laser operation. A 30 fs Ti:Sapphire regenerative amplifier is at the heart of the laser facility, operating at high repetition rates of 1 kHz and peak powers up to 230 GW. A power amplifier can boost the peak power to 3 TW. Modules for increased laser contrast and decreased pulse duration exist. Nonlinear and parametric amplifiers will enable wavelength tuning from 267 to 2100 nm central wavelengths maintaining short pulse durations. The flexible laser parameters provide a unique complement to laser plasma investigations at ELI.

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Session Classification: Single Cycle Pulse Applications