

Students' Annual Webinar

Boosting electron emission from liquid droplet microplasma

Sonali

Recent developments from our lab have shown that two plasmon decay (TPD) instability boosts electron acceleration to relativistic electron energy even at sub relativistic intensity of 4×10^{16} W/cm² with kHz repetition rates. The electron beam from the droplet has potential application in time-resolved crystallography, imaging, medical diagnostic and cancer therapy, if we can increase repetition rate of driving laser. Commercial high repetition laser sources are available with longer pulse width and longer wavelength, therefore it is important to study the effect of longer pulse width and longer wavelength on TPD. In this talk, I will present study on these aspects.

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11:30 AM