

Internal Webinar

Physics of Mesoscopic Particle Plasma

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The developments made in Laser technology in the recent years have opened up new prospects in the field of laser plasma interactions and particle acceleration. Recently conducted experiments had shown that the presence of a prepulse affected the interaction with mesoscopic particles by changing the spatial nature of the particle itself. This led to an unprecedented enhancement of the temperatures (electrons and subsequently ions). Experimental studies were conducted to further study and verify these results. PIC simulations conducted to substantiate these results also yielded positive outcomes to support these findings. Attempts to unravel the exact mechanism of acceleration are currently under way. Various experimental and simulation variations in parameters aid in giving a closer look into the processes which accelerate electrons.

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