

고출력 펨토초 레이저와 플라즈마를 이용한 입자가속
Particle Acceleration by High Power (> TW) Femtosecond
Lasers in Plasmas

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Charged particles can be accelerated to relativistic high energies by high power (> terawatt) laser beams.[1] We have a research project on laser and plasma-based advanced accelerators in Center for Advanced Accelerators at Korea Electrotechnology Research Institute (KERI), in which the 2 TW (1.4 J/700 fs) Ti:sapphire/Nd:glass hybrid laser system and a He plasma will be used for particle acceleration experiments. In this presentation, we introduce the ongoing research activities and the planned experiments at KERI.



Fig. 1. 2 TW laser system at KERI

[1] T. Tajima and J. M. Dawson, Phys. Rev. Lett. 43, 267 (1979).