

Dielectrics, Lasers, and Electron Acceleration

Dielectric lined waveguides (dlw) are an attractive alternative for particle acceleration due to their relative high acceleration gradients and low cost. We discuss work related toward the demonstration of wakefield acceleration in the THz regime at Fermilab's new ASTA, including the possibility of an energy doubler. Lastly we report on the an ongoing experiment using high-efficiency THz generation from optical rectification to drive modes in a slab-symmetric dlw.

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