

Abstract Submitted
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Laser Proton acceleration from mass limited silicon foils K. ZEIL, S. KRAFT, T. RICHTER, J. METZKES, M. BUSSMANN, U. SCHRAMM, R. SAUERBREY, T.E. COWAN, Forschungszentrum Dresden-Rossendorf, J. FUCHS, S. BUFFECHOUX, LULI — We present recent studies on laser proton acceleration experiments using mass limited silicon targets. Small micro machined silicon foils with $2\ \mu\text{m}$ thickness and $20\times 20\ \mu\text{m}^2$ to $100\times 100\ \mu\text{m}^2$ size mounted on very tiny stalks were shot with the 100 TW LULI Laser (long pulse 150 fs) and with the new 150 TW DRACO Laser facility (short pulse 30 fs) of the Research Centre Dresden-Rossendorf. The experiments were carried out using high contrast levels. Proton spectra have been measured with magnetic spectrometers and radio chromic film stacks.

Thomas Cowan
Forschungszentrum Dresden-Rossendorf

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