Abstract Submitted
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Measurements of ultraintense ultrafast laser pulse electron acceleration through analysis of radioactive products[1] D.R. SCHULTZ, C.R. VANE, J.R. BEENE, Oak Ridge National Laboratory, S. REED, A. MAKSIMCHUK, V. YANOVSKY, V. CHVYKOV, G. KALINTCHENKO, University of Michigan, S. BANERJEE, D. UMSTADTER, University of Nebraska — Rapid progress has recently been achieved in development of techniques to controllably accelerate charged particles to relativistic energies using plasma wake fields generated in gas or dense media using ultraintense ultrafast laser pulses. An inherent technical difficulty in these experiments lies in complications of measuring the energy and angular distributions of large numbers ($> 10^9$) of 'simultaneously' ($\sim$ ps) accelerated particles. We will discuss experimental techniques developed for interrogation of laser accelerated electrons, including methods based on production of radioactive targets.

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