

Abstract Submitted
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Completion of NDCX-II Facility and Initial Tests¹ JOE KWAN, DIEGO ARBELAEZ, WAYNE GREENWAY, JIN-YOUNG JUNG, STEVE LIDIA, THOMAS LIPTON, PRABIR ROY, PETER SEIDL, JEFF TAKAKUWA, WILLIAM WALDRON, LBNL, ALEX FRIEDMAN, DAVID GROTE, WILLIAM SHARP, LLNL, ERIK GILSON, PPPL — The Neutralized Drift Compression Experiment-II (NDCX-II) will generate ion beam pulses for studies of Warm Dense Matter and heavy-ion-driven Inertial Fusion Energy.² The machine will accelerate 20-50 nC of Li⁺ to 1.2-3 MeV energy, starting from a 10.9-cm alumino-silicate ion source. At the end of the accelerator the ions are focused to a mm spot size on a thin foil (planar) target; and the pulse length compressed to sub-ns during beam transport in a neutralizing plasma. While using solenoids for beam focusing, the acceleration and compression will be done by special voltage waveforms along the induction linac. The construction project started in July 2009 and will be complete by March 2012, or earlier. Progress on construction, component and initial beam tests will be reported.

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²see A. Friedman, et al., this meeting

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