

Technical Session	Technical Session Organizer
3.2 Intense Electron and Ion Beams	Yevgeny Raitses (yraitses@pppl.gov)

Session MO 1.4: Intense Electron and Ion Beams

Monday, May 22 10:00-12:00, Wildwood 13

Session Chairs: Sophia Gershman, ARISE Inc. and PPPL
Yevgeny Raitses, PPPL

10:00 MO 1.4-1 DESIGNING AN ELECTRON GUN FOR A HIGH EFFICIENCY IOT CAPABLE OF IONOSPHERIC HEATING

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10:15 MO 1.4-2 (invited) AMPLIFICATION DUE TO THE TWO-STREAM INSTABILITY OF SELF-ELECTRIC AND MAGNETIC FIELDS OF AN ION OR ELECTRON BEAM PROPAGATING IN BACKGROUND PLASMA

I. D. Kaganovich, E. K. Tokluoglu, J. A. Carlsson, K. Hara, A. Powis
Princeton Plasma Physics Lab, Princeton, NJ, USA

10:45 MO 1.4-3 IRRADIATION OF MATERIALS USING SHORT, INTENSE ION BEAMS FROM AN INDUCTION ACCELERATOR

P. A. Seidl¹, Q. Ji¹, A. Persaud¹, E. Feinberg¹, X. Kong^{1,2}, C. Sierra¹, F. Treffert^{1,3}, W. L. Waldron¹, T. Schenkel¹, J. J. Barnard⁴, D. P. Grote⁴, A. Friedman⁴, E. P. Gilson⁵, I. Kaganovich⁵, A. Stepanov⁵
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11:00 MO 1.4-4 MODELING THE TRANSPORT OF INTENSE RELATIVISTIC ELECTRON BEAMS THROUGH NITROGEN GAS

I. M. Rittersdorf¹, S. B. Swanekamp¹, A. S. Richardson¹, B. V. Weber¹, D. D. Hinshelwood¹, S. L. Jackson¹, J. W. Schumer¹, R. J. Comisso¹, D. Mosher², P. F. Ottinger², J. R. Angus³
¹*Naval Research Laboratory, Washington, DC, United States*
²*Syntek Technologies, Inc., Arlington, VA, United States*
³*Lawrence Livermore National Laboratory, Livermore, CA, United States*

11:15 MO 1.4-5 A RELATIVISTIC SELF-CONSISTENT MODEL FOR STUDYING ENHANCEMENT OF CHILD-LANGMUIR LIMIT DUE TO COUNTER-STREAMING IONS

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11:30 MO 1.4-6 SPACE-CHARGE LIMITED CURRENT OF RELATIVISTIC BEAM IN FINITE COAXIAL DRIFT TUBE

K. Ilyenko¹, T. Yatsenko¹, G. V. Sotnikov², S. Portillo³
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³*Department of Electrical and Computer Engineering, University of New Mexico, Albuquerque, NM, USA*

**11:45 MO 1.4-7 COMMISSIONING OF THE DRAGON-II TRIPLE PULSE LINEAR INDUCTION
ACCELERATOR**

J. Deng

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