Abstract Submitted
for the DPP16 Meeting of
The American Physical Society

Measurement of Ion Energization in Laboratory Plasmas[1] EARL SCIME, West Virginia University — Ion energization processes in space plasmas occur over a broad spectrum of spatial and temporal scales and once energized, such ions may trigger instabilities, drive turbulence, and alter pressure balance in MHD systems. Many of these ion energization processes can be investigated under controlled laboratory conditions, e.g., chorus energization of electrons in the radiation belts, ion temperature anisotropy driven instabilities, ion acceleration in double layers, ion beam structures created only in magnetic reconnection exhausts, Alfvén wave heating of ions, and ion flows along and across magnetic fields oblique to boundaries. I will review a few laboratory studies of ion energization and their relevance to space plasma phenomena.

[1]Funding for this work provided by NSF award PHYS- 1360278.

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Date submitted: 22 Jul 2016 Electronic form version 1.4