

Abstract Submitted  
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**Cylindrical Compression of Gases using Pulsed Power<sup>1</sup>** GUY BURDI-  
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JONATHAN SKIDMORE, Imperial College London — The first experiments aimed  
at shock compressing high Z gas in a converging cylindrical geometry have been car-  
ried out on the MAGPIE generator (1.4 MA, 250 ns rise). A thin walled tube or  
liner (approx.  $50\mu\text{m}$  wall, 10mm diameter) is filled with argon at a few mBar and  
subjected to the MAGPIE current pulse. Material ablated from the inner liner sur-  
face is accelerated towards the axis by the JxB force and acts on the gas inside.  
Experiments with no gas fill show an initially azimuthally symmetric plasma flow  
from the inner liner surface with a velocity of 100-150km/s. Axial laser probing  
and self-emission data are presented for these experiments, along with preliminary  
gas-fill results.

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