

Abstract Submitted  
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**Bright Spots in X-pinch Plasmas at 6 MA**<sup>1</sup> D.B. SINARS, D.J. AM-  
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NY 14853, USA, S.N. BLAND, J.P. CHITTENDEN, Imperial College London, Lon-  
don, United Kingdom — Bright,  $\sim 1 \mu\text{m}$ , 10-100 ps x-ray sources with extreme  
plasma parameters are routinely created using X-pinch plasmas driven by 0.2 MA.  
Modeling suggests that even more extreme plasma parameters might be possible at  
higher current. We present data from the first 6 MA X-pinch experiments on the  
SATURN facility at Sandia National Laboratories. The mass required to pinch near  
peak current was surprisingly low ( $\sim 14 \text{ mg/cm}$  vs.  $\sim 3 \text{ mg/cm}$  at 1 MA) and the  
smallest x-ray source measured was  $\sim 60 \mu\text{m}$  in size. Following up on recent work  
by Pikuz et al. at 1 MA, experiments in September will use nested-array X-pinch  
implosions to improve the symmetry.

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