

MAGNETIC FOCUSING ACHIEVES SUB-100 μm SPOTS WITH MINI X-RAY TUBES
S. Cornaby¹, J Steele², M. Hadley², O. Johnson², P. Jepsen², S. Rose²

¹Moxtek Inc

²Brigham Young University

Moxtek has retro-fit their existing mini x-ray tubes with a magnetic focusing apparatus in an attempt to make a prototype micro-focus tube. With a permanent magnet design, x-ray spots down to 30-50 μm have now been achieved using high voltage acceleration potential between 30-40 kV. Other prototype magnetically focusing designs are presently being explored to achieve this small x-ray spot size over a larger range of acceleration potentials. The performance and the basic design of the prototype tubes will be discussed.