

MICROFOCUS LIQUID-METAL-JET X-RAY TUBES AND APPLICATIONS

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We will present our first commercial products based on the previously demonstrated liquid-metal-jet anode x-ray source concept [1-3]. This x-ray source is several times brighter than both current state-of-the-art microfocus sources and rotating anodes. Detailed specifications including size, reliability and maintenance will be discussed. Measurements of flux, spot size, intensity, brightness, stability etc will also be presented. Typical applications include XRD and phase imaging where the increased source brightness directly results in drastically decreased exposure times. Some examples of this will also be given.

- [1] O. Hemberg, M. Otendal, and H. M. Hertz, “Liquid-metal-jet anode electron-impact x-ray source”, *Appl. Phys. Lett.* 83, 1483 (2003)
- [2] T. Tuohimaa, M. Otendal, and H. M. Hertz, “Phase-contrast x-ray imaging with a liquid-metal-jet-anode microfocus source”, *Appl. Phys. Lett.* 91, 074104 (2007)
- [3] O. Hemberg, M. Otendal, T. Tuohimaa, and H. M. Hertz, “Microfocus liquid-metal-jet x-ray tubes and applications.” Denver X-Ray Conference 2008.

INFORMATION PAGE

Permission: Permission granted to post abstract on DXC website

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Preference: Oral presentation
New Developments in XRD and XRF Instrumentation

Publish: No. This presentation mostly covers product information and application examples that have limited scientific value and will become available on our homepage after the conference.