

Microcalorimeter applications in laboratory X-ray spectroscopy - Natalie Hell

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For over two decades, X-ray microcalorimeters, provided by the NASA/GSFC calorimeter group, have been work-horse spectrometers at the Lawrence Livermore National Laboratory's Electron Beam Ion Trap (EBIT) facility. Their high spectral resolution across a broad energy band have enabled many atomic physics and laboratory astrophysics measurements. While many of these measurements focus on the energy range of 0.2-10 keV, the EBIT Calorimeter Spectrometer (ECS) also houses a high-energy array covering a bandpass of 1 to over 100 keV. I will introduce the calorimeters employed at the LLNL EBIT and show examples of measurements conducted with them.

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