

Poster

Characterization of Mo/Au Transition-edge Sensors with Different Geometric Configurations

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We are developing transition-edge sensors (TES) for a variety of x-ray astronomy applications. Different detector applications require different array performance criteria such as angular resolution, energy resolution and count-rate. This in turn places constraints on the geometric configuration of the TES. In this contribution we examine how devices of different sizes, with different self-induced magnetic field environments, and with different normal metal features (used for stem attachment and noise mitigation) affect the measured critical current as a function of temperature and magnetic field. We examine how this in turn affects the small signal transition parameters alpha and beta and ultimately impacts the measured energy resolution.