DESIGNING POLYCAPILLARY X-RAY OPTICS FOR DIFFRACTION AND FLUORESCENCE

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Comparing different x-ray optics is frequently a difficult task due to the lack of standardized characterization measures. In this talk we will define a set of input and output performance measures that addresses this standardization issue. These performance parameters will be separated into two groups – uni-geometrical, where the parameter depends solely on optic geometry, and bi-geometrical, where the parameter depends on source geometry ***and*** optic geometry. Using both sets of parameters, computer simulation results will be presented on polycapillary optics designed to have optimal outputs for x-ray diffraction (XRD) and fluorescence (XRF) applications. Experimental measurements on the performance of polycapillary optics made with these optimal parameters will also be presented and their suitability for XRD and XRF will be discussed.

To whom it may concern,

The previous page contains my abstract for submission to the 2002 Denver X-ray Conference. You have my permission to post this abstract on the DXC web-site and other affiliated sites. My contact information is:

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I intend to publish the paper in Advances in X-ray Analysis, V46 and I also prefer to give an oral presentation. I request that the oral presentation take place during the Joint XRD & XRF Special Session: X-ray Optics (Gao/Havrilla).

Sincerely,
Sarah P. Formica