

## INTENSITY VS. RESOLUTION AND PEAK SHAPE IN X-RAY DIFFRACTION; SINGLE AND DOUBLE GOEBEL MIRROR CONFIGURATIONS COMPARED TO STANDARD PARAFOCUSING OPTICS

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When choosing the optimum configuration for a given x-ray diffraction application there is always a trade-off between optimizing for intensity or for resolution. Additionally, the use of parallel x-ray beam x-ray optics in laboratory x-ray has been normally achieved only with very large intensity losses. However, developments in x-ray mirror optics in the last decade have enabled the practical use of parallel x-ray beam optics without major intensity losses. In this poster we will present results obtained from various diffractometer configurations using both single and double Goebel mirrors as well as standard parafocusing geometry. Data was collected from NIST line profile standard in order to evaluate these configurations.