

**Image Plate and CCD Detectors for Light-Atom  
Absolute Structure Determination: Comparison and  
Contrast.**HiromiMaksymilian Chruszcz<sup>c</sup>

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CCD detectors offer advantages such as very fast readout and high sensitivity when collecting X-ray diffraction data. But when using Cu (or other long-wavelength) radiation one is limited by the solid angle intercepted by the CCD phosphor, and therefore multiple scans at low and then high  $2\theta$  angles are required in order to obtain a complete data set and to insure adequate redundancy in the data. The use of a curved image plate may be advantageous in this situation, since both negative and positive  $2\theta$  reflections can be collected simultaneously while very high resolution data are included at the same time. But even when data are collected very carefully using a curved imaging plate, is it possible to unequivocally determine absolute structure when no atoms heavier than oxygen are present? Comparisons of detector performance with such crystals will be presented and critically analyzed.