8. REFINEMENT OF STRUCTURAL PARAMETERS

where $A_g = U_g^{\text{eff}}t$, and J_0 is the Bessel function of zero order. For a small gap, the intensity is proportional to $|U^{\text{eff}}|^2$. By many-beam calculations, Gjønnes & Bøe (1994) showed the integrated intensities to be less sensitive to dynamical interactions along the row than that indicated from the Bethe potentials, and that relative intensities are fairly independent of thickness. Coordinate refinement based on intensities from a few high-order Kossel-line segments appear to produce accuracies roughly one order of magnitude poorer than good single-crystal X-ray determination. This may suggest that if some form of three-dimensional intensity data could be collected in electron diffraction the same level of accuracies as with X-rays may be attainable – which, however, remains to be seen.

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8.1

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