

3.25: Secondary extinction

The **secondary extinction** is responsible for the loss of intensity occurring when the incident beam crosses a crystal. Each plane of a family (hkl) satisfying [Laue equations](#) (or [Bragg's law](#)) diffracts the incident beam, and thus subtracts part of the intensity to the incident beam. Successive planes of the same family will then experience a weakening of the incident beam and as a consequence the diffracted beams will result from the positive interference of waves not having the same intensities, as it is instead considered by the kinematical theory.

Secondary extinction is equivalent to an increase of the linear absorption coefficient and is negligible for sufficiently small crystals.

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