

$$k_{\parallel} = 0.51 \sqrt{E_{kin}} \sin(\theta_m + \theta_x)$$

Where, $\theta_x = \tan^{-1} \left\{ (eU(1 - \sin\theta_m / \theta_m)) / (E_{kin} - eU(1 - \sin\theta_m / \theta_m)) \right\}^{0.5}$

θ_m is measured angle and θ_x is the correction.

e is the electron charge,

U is typically 5 V.

E_{kin} is the kinetic energy