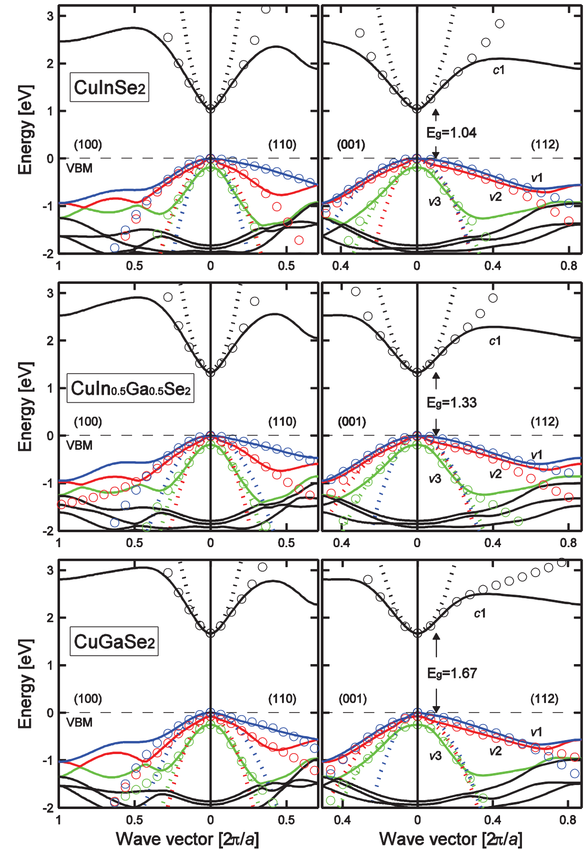

$$E_j(\mathbf{k}) = E_j^{pb}(\mathbf{k}) + E_j^0 + \Delta_{j,1}\left(\delta_{j,1}^2\left(\frac{\tilde{k}_x^4 + \tilde{k}_y^4}{m_0^2}\right) + \delta_{j,2}^2\left(\frac{\tilde{k}_x^2\tilde{k}_y^2}{m_0^2}\right) + 1\right)^{1/2}$$
$$+ \Delta_{j,2}\left(\delta_{j,3}^3\left(\frac{\tilde{k}_x^6 + \tilde{k}_y^6}{m_0^3}\right) + \delta_{j,4}^3\left(\frac{\tilde{k}_x^2\tilde{k}_y^4 + \tilde{k}_x^4\tilde{k}_y^2}{m_0^3}\right) + 1\right)^{1/3}$$
$$+ \Delta_{j,3}\left(\delta_{j,5}^2\left(\frac{\tilde{k}_z^4}{m_0^2}\right) + 1\right)^{1/2} + \Delta_{j,4}\left(\delta_{j,6}^3\left(\frac{\tilde{k}_z^6}{m_0^3}\right) + 1\right)^{1/3}$$
$$+ \Delta_{j,5}\left(\delta_{j,7}^2\left(\frac{\tilde{k}_x^2\tilde{k}_z^2 + \tilde{k}_y^2\tilde{k}_z^2}{m_0^2}\right) + 1\right)^{1/2}$$
$$+ \Delta_{j,6}\left(\delta_{j,8}^3\left(\frac{\tilde{k}_x^4\tilde{k}_z^2 + \tilde{k}_y^4\tilde{k}_z^2}{m_0^3}\right) + \delta_{j,9}^3\left(\frac{\tilde{k}_x^2\tilde{k}_z^4 + \tilde{k}_y^2\tilde{k}_z^4}{m_0^3}\right) + \delta_{j,10}^3\left(\frac{\tilde{k}_x^2\tilde{k}_y^2\tilde{k}_z^2}{m_0^3}\right) + 1\right)^{1/3}$$

$$E_j^{pb}(\mathbf{k}) = E_j(\mathbf{0}) \pm \left[\frac{\tilde{k}_x^2 + \tilde{k}_y^2}{m_j^{\perp}} + \frac{\tilde{k}_z^2}{m_j^{\parallel}}\right] \quad \text{with} \quad \tilde{k}_\alpha^2 = \frac{\hbar^2 k_\alpha^2}{2e}, (\alpha = x, y \text{ and } z)$$