Abstract Submitted for the MAR06 Meeting of The American Physical Society

Effective Masses of Vector Polarons CHARLES FOELL, DENNIS CLOUGHERTY, University of Vermont — We consider the vector polarons of a one-dimensional model of an electron in a doubly (or nearly) degenerate band that couples to two elastic distortions, as described previously by Clougherty and Foell [1]. A variational approach is used to analytically and numerically calculate effective masses of the three types of vector polarons. [1] D. P. Clougherty and C. A. Foell, Phys. Rev. B 70, 052301 (2004).

Charles Foell University of Vermont

Date submitted: 11 Jan 2006

Electronic form version 1.4