Abstract Submitted for the GEC08 Meeting of The American Physical Society

Low Energy Elastic Scattering from n-Propanol and n-Butanol¹ M.A. KHAKOO, J. MUSE, Cal. State U. Fullerton, CA, USA, H. SILVA, M.C.A. LOPES, Federal U. of Juiz de Fora, MG, Brazil, C. WINSTEAD, V. MCKOY, CalTech, Pasadena, CA, USA, R.F. DA COSTA, E.M. DE OLIVEIRA, M.A.P. LIMA, State U. of Campinas, SP, Brazil, M.H.F. BETTEGA, Federal U. of Parana, Curitiba, Brazil, L.G. FERREIRA, U. of Sao Paulo, SP, Brazil, M.T. DO N. VARELLA, Federal U. of ABC, Santo Andre, SP, Brazil — Measured and calculated elastic electron scattering differential cross sections are reported at incident energies of 1, 2, 5, 10, 15, 20, 30, 50, and 100 eV. The measurements employed the relative flow method with He as the standard gas and an aperture collimating gas source. The calculated results are obtained from two different implementations of the Schwinger multichannel method: one that takes all electrons into account and is adapted for parallel computers and another that uses pseudopotentials and considers only the valence electrons. Both sets of calculations include polarization effects. Comparison between the measured and calculated cross sections is found to be quite satisfactory.

¹Funded by NSF, DOE (USA) and CAPES, CNPq, FAPEMIG, FAPESP, Finep (Brazil)

M.A. Khakoo

Date submitted: 19 Jun 2008 Electronic form version 1.4