Supporting Information for

Comparisons of Analytical Approaches for Determining Shell Thicknesses of Core-Shell Nanoparticles by X-ray Photoelectron Spectroscopy

C. J. Powell,*[,†] W. S. M. Werner,[‡] H. Kalbe,[‡] A. G. Shard,[§] and D. G. Castner[||]

[†]Materials Measurement Science Division, National Institute of Standards and Technology, Gaithersburg, Maryland 20899-8370, United States

[‡]Technical University of Vienna, Institute of Applied Physics, Wiedner Hauptstrasse 8-10, A-1040 Vienna, Austria

[§]National Physical Laboratory, Hampton Road, Teddington, Middlesex TW11 0LW, United Kingdom

[||]National ESCA and Surface Analysis Center for Biomedical Problems, Departments of Chemical Engineering and Bioengineering, University of Washington, Seattle, Washington 98195-1653, United States

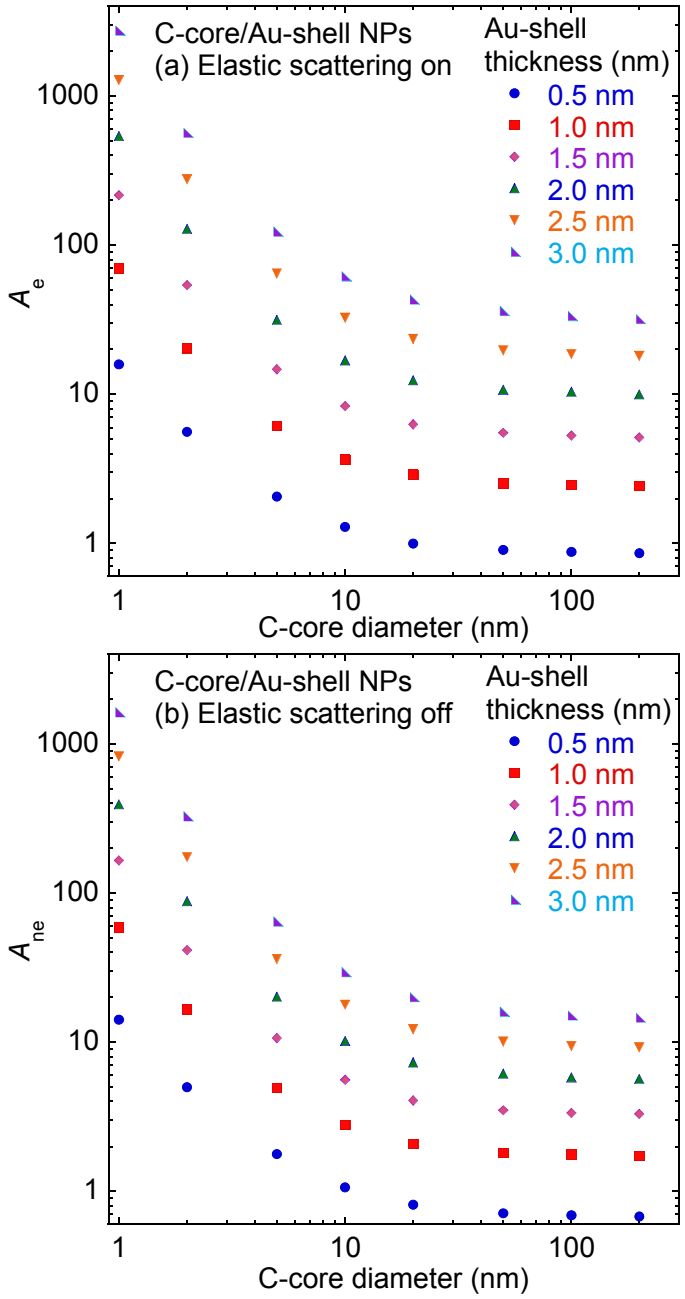

Figure S1. Plots of (a) A_e, the value of the parameter A in the Shard equation [eq. (1g)] when elastic scattering was switched on in the SESSA simulations, and (b) A_{ne}, the value of the parameter A in the Shard equation [eq. (1g)] when elastic scattering was switched off in the SESSA simulations, for C-core/Au-shell NPs as a function of core diameter and for selected shell thicknesses between 0.5 nm and 3 nm.

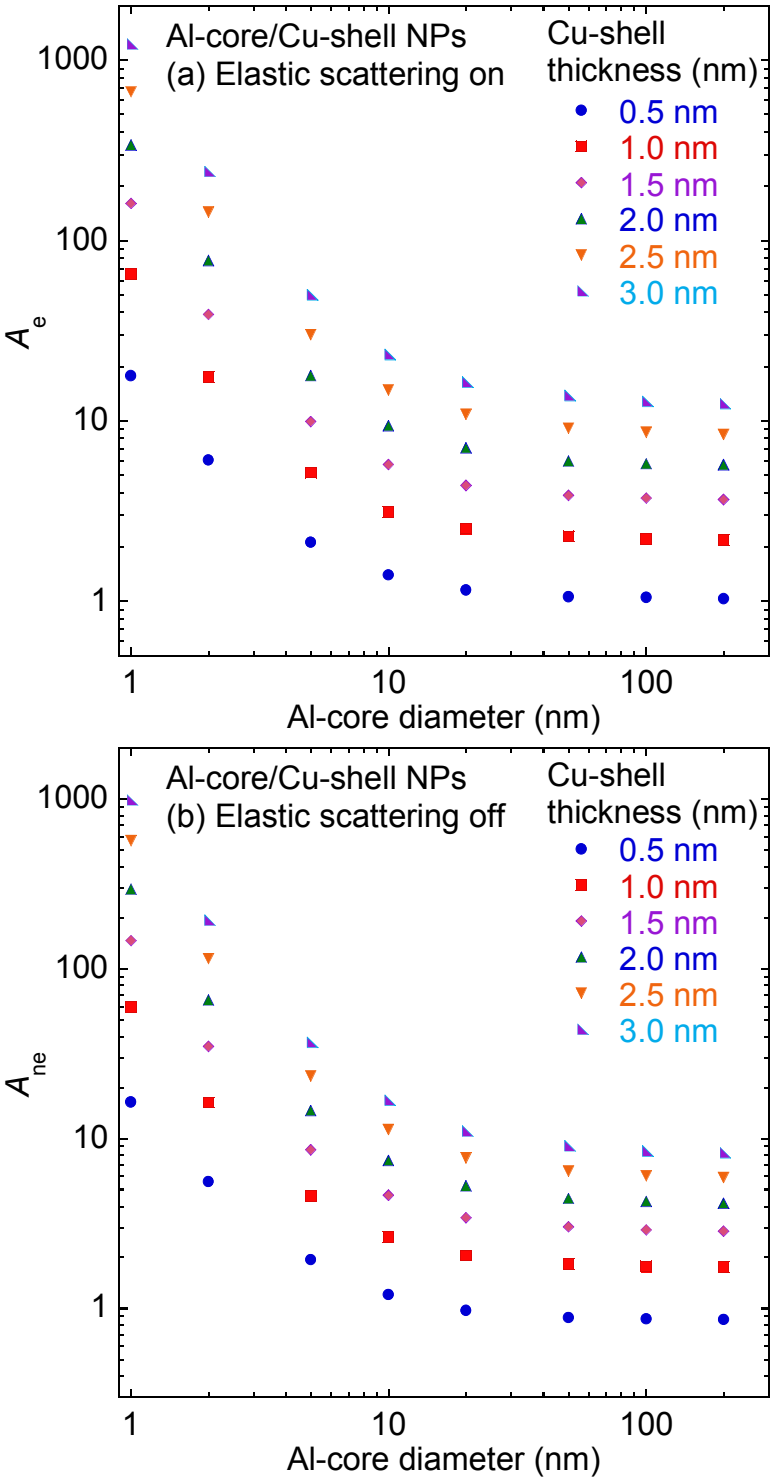

Figure S2. As for Figure S1 except for Al-core/Cu-shell NPs.

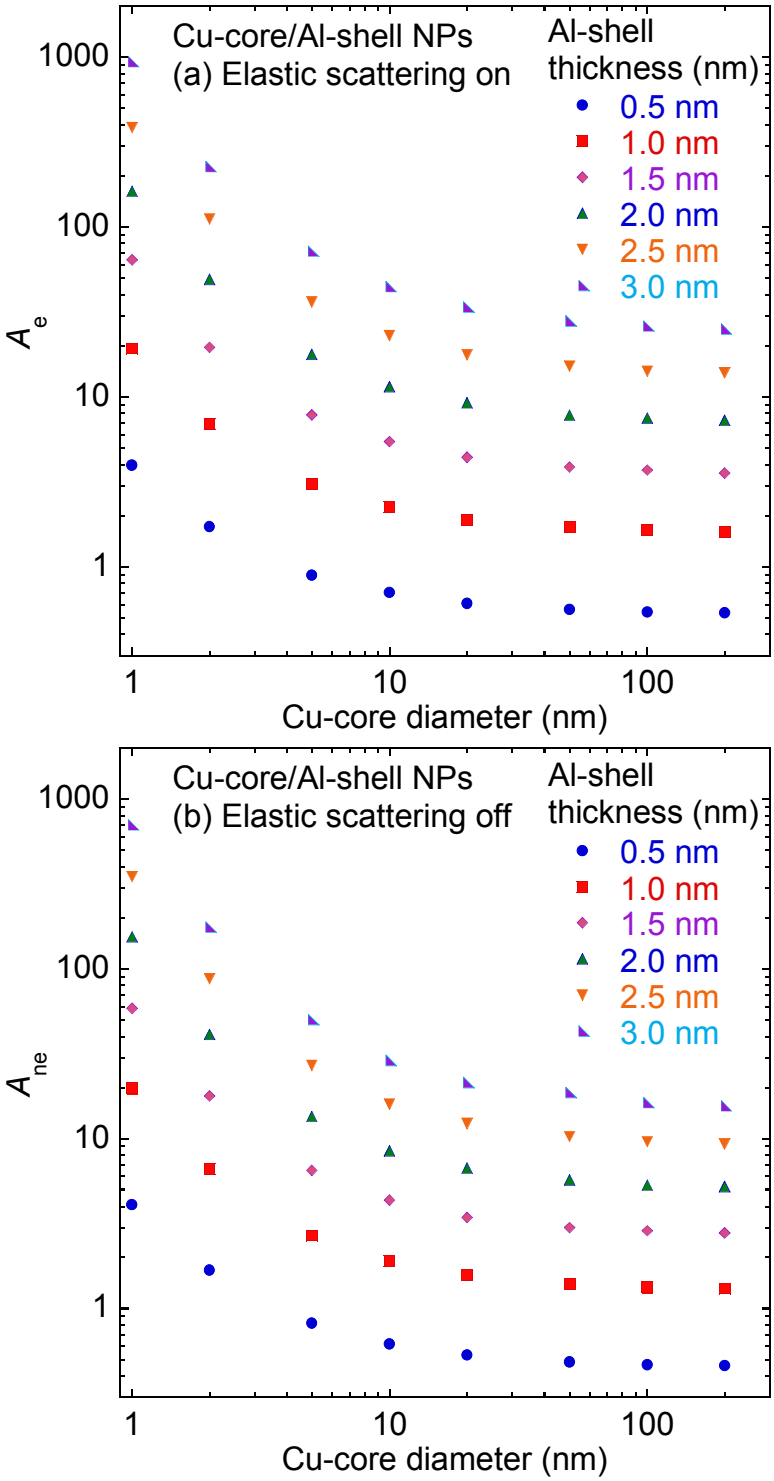

Figure S3. As for Figure S1 except for Cu-core/Al-shell NPs.