

Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Structures and ligand binding energies of size selected gold and silver clusters: Approach to the bulk MICHAEL T. BOWERS, MANUEL MANARD, PAUL KEMPER, University of California, Santa Barbara — Gold and silver clusters are formed by laser ablation, mass selected, and either reacted with ethene or subjected to ion mobility measurement. Structures are assigned by two methods. In the first sequential ligand binding energies are measured and correlated with possible structures. In the second experimental cross sections are correlated with cross sections from model structures. Both anionic and cationic clusters are measured in the size range 3 to 13. For the anions calculated and experimental detachment energies are also used as structural diagnostics. The various data are compared with bulk values and approach to the bulk assessed.

Michael T. Bowers
University of California, Santa Barbara

Date submitted: 30 Nov 2005

Electronic form version 1.4