

Cluster Assembled Materials

Editor:

Klaus Sattler

TRANS TECH PUBLICATIONS
Switzerland • Germany • UK • USA

Table of Contents

Preface	vii
Stability and Electronic Structure of Cluster Assembled Materials P. Jena, S.N. Khanna and B.K. Rao	1
Electronic and Atomic Structure of Large Covalent and Metal Clusters: Applications to Cluster Assembled Materials M. Broyer, M. Pellarin, B. Baguenard, J. Lermé, J.L. Vialle, P. Melinon, J. Tuaille, V. Dupuis, B. Prevel and A. Perez	27
Evolution of the Electronic and Geometric Structure of Size Selected Pt and Pd Clusters on Ag(110) Observed by Photoemission W.-D. Schneider, H.-V. Roy, P. Fayet, F. Patthey, B. Delley and C. Massobrio	51
Structure and Properties of Covalently Bonded Si Clusters E. Kaxiras	67
Atomic and Electronic Structure of Silicon Clusters at Finite Temperature J.R. Chelikowsky and N. Binggeli	87
Preparation and Superconductivity of Silicon Clathrate Compounds S. Yamanaka, H. Kawaji and M. Ishikawa	103
Scanning Tunneling Microscopy Studies of Fullerenes T. Sakurai, X.-D. Wang and T. Hashizume	119
Clusters of Fullerene Molecules J.A. Alonso and L.J. Gallego	155
C₆₀ Polymers A.M. Rao and P.C. Eklund	173
Metallofullerenes: Their Formation and Characterization H. Shinohara, M. Takata, M. Sakata, T. Hashizume and T. Sakurai	207
Electronic Structure of C and Si Fullerenes and Fullerides S. Saito	233
Hollow Diamonds from Fullerenes G. Benedek and L. Colombo	247
Inorganic Fullerenes from 2-D Layered Compounds R. Tenne	275
Author Index	295
Keyword Index	297