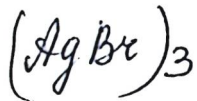


$(Ag-Br)_n$





Common 10995 | 1981.

MacNaughton R. M., et al.

promoted.
cncip

J. Electr. Spectrosc. and
Relat. Phenom., 1981,
22, 1-25.

2000

F: Ag₂Br⁺

P: 3

133:325865 Ab initio pseudopotential study of M₂As-
and M₂Br⁺ (M = Cu, Ag, Au). Zhao, Yongfang; Jing,
Xiaogong; Zhang, Mingyu Department of Physics,
Harbin Institute of Technology Harbin 150001,
Peop. Rep. China Int. J. Quantum Chem., 80(1), 38-
43 (English) 2000. The equil. geometries and the
vibration frequencies of Cu₂As-, Ag₂As-, Au₂As-, Cu₂Br⁺,
Ag₂Br⁺, and Au₂Br⁺ were calcd. at the Hartree- Fock (HF)

and the second-order Moller-Plesset (MP2) levels with pseudopotentials. The species have a bent C_{2v} structure. The electron correlation corrections to geometries were investigated at the MP2 level; the bond angles were reduced by 10.degree.-20.degree.. The electron correlation effects on the geometry of Au_2As- were studied at MP2, MP3, MP4, CCSD and CCSD(T) levels.

A comparison of the species contg. Ag and Au shows that relativistic effects slightly shorten the bond lengths.

A bonding state is predicted for Au_2As- .

F: Ag₂Br⁺

P: 3

134:331878 Ab initio pseudopotential study of M₂As⁻ and M₂Br⁺ (M = Cu, Ag, Au). Zhao, Yong-fang; Jing, Xiao-gong; Zhang, Ming-yu. Institute of Atomic and Molecular Physics, Jilin University, Changchun, Peop. Rep. China. Yuanzi Yu Fenzi Wuli Xuebao (2001), 18(1), 76-79. in Chinese.

The equil. geometries and the vibration frequencies of M₂As⁻ and M₂Br⁺ (M = Cu, Ag, Au) were calcd. at the HF and the MP2 levels with pseudopotentials. The calcd. results indicated that the species had a bent structure (C_{2v}). The electron correlation corrections to the geometries were investigated at the MP2 level; the bond angles were reduced by 10°-20° for the considered species. The electron correlation effects on the geometry of the Au₂As⁻ were studied particularly at MP2, MP3, MP4, CCSD and CCSD(T) levels. A comparison between the species contg. Ag and Au showed that the relativistic effects slightly shortened the bond lengths. The bonding state of Au₂As⁻ was predicted.

2001