

Publikasjonsliste for Kirsten Aarset

1. K. Aarset, K. Hagen, G. Frenking, A. Wehrsig, "Molecular Structure and Conformational Composition of 2-Chloropropanal, a Gas-Phase Electron Diffraction and Ab Initio Investigation", *J. Phys. Chem.* **1993**, 97, 10760
2. K. Aarset, R. Stølevik, "Torsional Potentials and Conformational Structures in Chloro-substituted Propanals as Determined by Molecular Mechanics Calculations", *J. Mol. Struct.* **1993**, 300, 47
3. K. Aarset, R. Stølevik, P. C. Sæbø, "Torsional Potentials and Conformational Structures in 1,4-Halobutane (F, Cl, Br, I) as Determined by Molecular Mechanics Calculations", *J. Mol. Struct.* **1994**, 326, 227
4. K. Aarset, K. Hagen, L. G. Faksnes, I. Nygård, "Molecular Structure and Conformational Composition of 2-Methylpropanal and 2-Methylpropionyl Chloride: A Gas-Phase Electron Diffraction and Ab initio Investigation", *J. Phys. Chem* **1994**, 98, 2848
5. K. Aarset, K. Hagen, R. Stølevik, P. C. Sæbø, "Molecular Structure and Conformational Composition of 1,4-Dichlorobutane and 1,4-Dibromobutane, a Gas-phase Electron Diffraction and Ab Initio Investigation", *J. Phys. Chem.* **1994**, 98 5249
6. K. Aarset, K. Hagen, R. Stølevik, "Molecular Structure and Conformational Composition of 1-Chlorobutane, 1-Bromobutane and 1-iodobutane, As Determined by Gas-phase Electron Diffraction and Ab initio Calculations". *Struct. Chem.* **1995** Vol 6. No. 3 197
7. K. Aarset, K. Hagen, R. Stølevik, "Molecular Structure and Conformational Composition of 1,3-Dichlorobutane, and 1,3 -dibromobutane, As Determined by Gas-phase Electron Diffraction and Ab Initio Calculations. *J. Phys. Chem.* **1995** 99, 28, 11089
8. K. Aarset, K. Hagen, R. Stølevik, "Molecular Structure and Conformational Composition of 1,1-Dichlorobutane, a Gas-Phase Electron-Diffraction and Ab Initio Investigation". *J. Mol. Struct.*, **1997**, 413, 241
9. K. Aarset, K. W. Hedberg, H. Thomassen, Q. Shen, "Molecular Structure of Aluminum halides, Al₂Cl₆, AlCl₃, Al₂Br₆, AlBr₃, and AlI₃, obtained by Gas-Phase Electron-Diffraction and Ab initio Molecular Orbital Calculations". *J. Phys. Chem.*, **1999**, 103, 1644,
10. K. Aarset, E. M. Page, D. A. Rice, K. Hagen, "An evaluation of the use of a commercial skanner to obtain experimental data produced by gas-phase electron diffraction and recorded on photographic plates" , *J. Mol. Struct.*, **1999**, 478, 9

11. K. Aarset, E. M. Page, D. A. Rice ,” Molecular Structures of 1,1-Dimethyl-1-silacyclopent-3-ene, $(\text{CH}_3)_2\text{SiC}_4\text{H}_6$, and 1,1-Dimethyl-1-germacyclopent-3-ene, $(\text{CH}_3)_2\text{GeC}_4\text{H}_6$, obtained by Gas-Phase Electron-Diffraction and Theoretical Calculations”, *J. Phys. Chem.*, **1999**, *103*, 5574
12. E. Johnsen, A. J. Downs, T. M. Greene, P. F. Souter, K. Aarset, E. M. Page, D. A. Rice, , A. N. Richardson, P. T. Brain, D. W. H. Rankin, C. R. Pulham, ”Monochlorogallane: Physical Properties and Structure of the Gaseous Molecule $\text{H}_2\text{Ga}(\mu\text{-Cl})_2\text{GaH}_2$ as Determined by Electron Diffraction and *Ab Initio* Computations”. *Inorg. Chem.*, **2000** *39*, 719
13. K. Aarset, F. Brandy, E. M. Page, D. A. Rice, ”Molecular Structure of Tetramethoxygermane, $\text{Ge}(\text{OCH}_3)_4$, Obtained by Gas-Phase Electron-Diffraction and *Ab initio* Molecular Orbital Calculations”. *J. Mol. Struct.*, **2000**. 522, 125
14. K. Aarset, A. G. Császár, W. Klopper, E. L. Sibert , W. D. Allen, H. F. Schaefer III, J. Noga ”Anharmonic Force Field, Vibrational Energies, and Barrier to Inversion of SiH_3^- ”, *J. Chem. Phys.*, **2000**, *112*, 4053
15. E. M. Page, D. A. Rice, K. Aarset, K. Hagen, A. R. J. Genge, ”The Structure and Conformational of Bis(methylthio)methan, $(\text{MeS})_2\text{CH}_3$ Determined by Gas Phase Electron Diffraction and *Ab Initio* Methods *J. Phys. Chem. A* **2000**, *104*, 6672
16. K. Aarset, K. Hagen, R. Stølevik, ”Molecular Structures and Conformational Compositions of 2-Chlorobutane and 2-Bromobutane; An Investigation Using Gas-Phase Electron-Diffraction Data and *Ab Initio* Molecular Orbital Calculations”, *J. Mol. Struct.* **2001**, 567-568, 157
17. A. J. Downs, T. M. Greene, E. Johnsen, P. T. Brain, C. A. Morrison, S. Parsons, C. R. Pulham, D. W. H. Rankin, K. Aarset, E. M. Page, D. A. Rice, I. M. Mills, “Preparation and Properties of Gallaborane, GaBH_6 : Structure of the Gaseous Molecule $\text{H}_2\text{Ga}(\mu\text{-H})_2\text{BH}_2$ as Determined by Vibrational, Electron Diffraction and *Ab Initio* Studies, and Structure of the Crystalline Solid at 110 K as Determined by X-ray Diffraction.” *Inorg. Chem.*, **2001**, *40*, 3484
18. K. Hagen, K. Aarset, C. E. Beer, E. M. Page, D. A. Rice, ”Organometallic precursors for the formation of GaN by MOCVD: Structural characterization of $(\text{CH}_3)_3\text{GaN}(\text{CH}_2\text{CH}_3)_2$ by gas-phase electron diffraction and *ab initio* molecular orbital calculations”, *J. Phys. Chem. A*, **2002**, *106*, 8762
19. K. Aarset, E. M. Page, “Molecular Structures of trimethylchlorogermane, $(\text{CH}_3)_3\text{GeCl}$, and trimethylbromogermane $(\text{CH}_3)_3\text{GeBr}$, obtained by Gas-Phase Electron Diffraction and Theoretical Calculations.” *J. Phys. Chem. A*. **2004**, *208*, 5474-5478

20. K. Aarset, K. Hagen “Molecular structure and conformational composition of 2-chloro-1-phenylethanone, $\text{ClH}_2\text{C}-\text{C}(=\text{O})\text{Ph}$, obtained using gas-phase electron-diffraction data and results from theoretical calculations”, *J. Phys. Chem A.*, **2005**, 109, 1897-1902
21. K. Aarset, E. M. Page, D. A. Rice, “The Molecular Structure of 2,5-Dihydropyrrole (C_4NH_7), obtained by Gas-Phase Electron Diffraction and Theoretical Calculations.” *J. Phys. Chem. A*, **2005**, 109,4961-4965
22. K. Aarset, E. M. Page, D. A. Rice, “The Molecular Structures of Benzoic Acid and 2-Hydroxybenzoic Acid, obtained by Gas-Phase Electron Diffraction and Theoretical Calculations”. *J. Phys. Chem A*, **2006**, 110, 9014-9019