

Abstract Submitted  
for the DAMOP08 Meeting of  
The American Physical Society

**Structure and properties of  $\text{Al}^+$**  KYLE ROLLIN, MICHAEL BROMLEY<sup>1</sup>, Department of Physics, San Diego State University, San Diego, CA, JIM MITROY, School of Engineering, Charles Darwin University, Darwin, NT, Australia — The properties of a number of states of single charged  $\text{Al}^+$  ion are determined from a large basis configuration interaction calculation. The main focus is on the polarizabilities of the low-lying states (the  $3s^2\ ^1\text{S}^e$ ,  $3s3d\ ^1,^3\text{D}^e$ ,  $3s3p\ ^1,^3\text{P}^o$  and  $3s4s\ ^1,^3\text{S}^e$  states) and the dispersion interactions of those states with the  $\text{Al}^+$  ground state, the hydrogen atom and the rare gases.

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Date submitted: 01 Feb 2008

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