Abstract Submitted
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Calculation of the dispersion interaction between two atoms[1] J.-Y. ZHANG, J. MITROY, Faculty of Technology, Charles Darwin University, Darwin NT 0909, Australia, M.W.J. BROMLEY, Department of Physics, San Diego State University, San Diego, CA 92182 USA — A general procedure for systematically evaluating the long range interaction between two hetero-nuclear atoms in arbitrary states is outlined. The C_6, C_8 and C_{10} dispersion coefficients for the excited states of a number of alkali and alkaline atoms interacting with H and He are evaluated. One useful result concerns the lowest order C_6 coefficient for a pair of hetero-nuclear atoms. This can always be written in terms of sum rules only involving the oscillator strength. In addition, the coefficients for the long-range interaction between two homo-nuclear lithium atoms in a variety of excited states are presented.

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Jun-Yi Zhang
Faculty of Technology, Charles Darwin University, Darwin NT 0909, Australia

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