

A comparison of the dynamic dipole polarizabilities of Li, Na, K, and Rb atoms evaluated by the different methods

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References

- [1] M. Marinescu, H. Sadeghpour and A. Dalgarno, Phys. Rev. A, 1994, v.49, p.5103
- [2] X. Chu and A. Dalgarno, Phys. Rev. A, 2002, v.66, p.024701.
- [3] M. Safronova, B. Arora and C. W. Clark, Phys. Rev. A, 2006, v.73, p.022505.

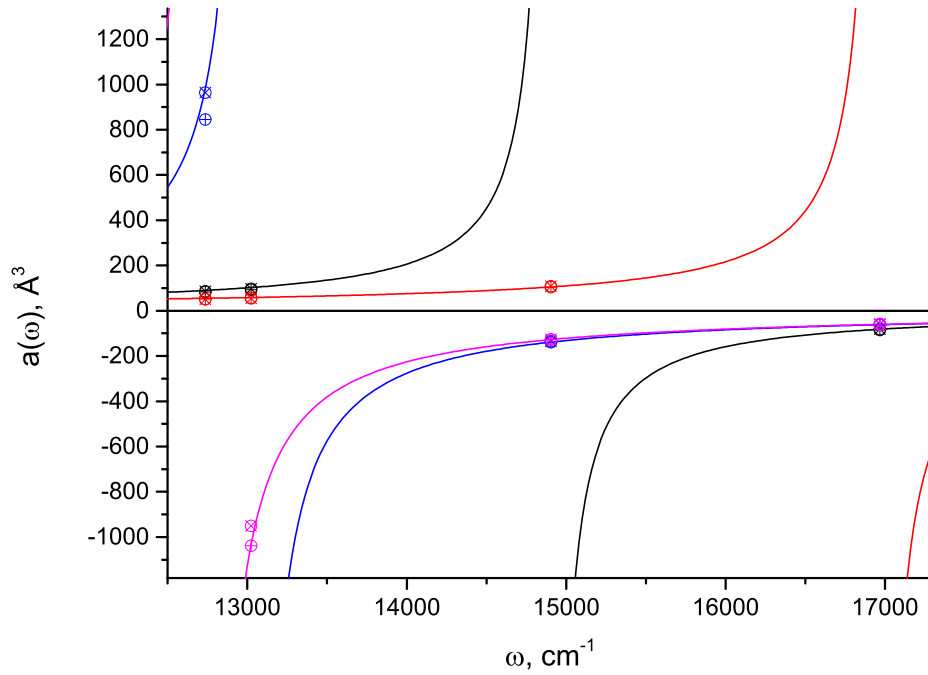


Figure 1: The dynamic dipole polarizabilities of Li, Na, K, and Rb atoms (black, red, blue, and magenta, respectively): solid lines denote the results obtained by formula (5) taken from Ref. [1] while symbols are the values extracted from the present *ab initio* ETDMs functions by the asymptotic formula (1) of X. Chu and A. Dalgarno [2] (circles with plus are for $\Sigma - \Sigma$ and circles with cross are for $\Sigma - \Pi$ transitions, respectively).

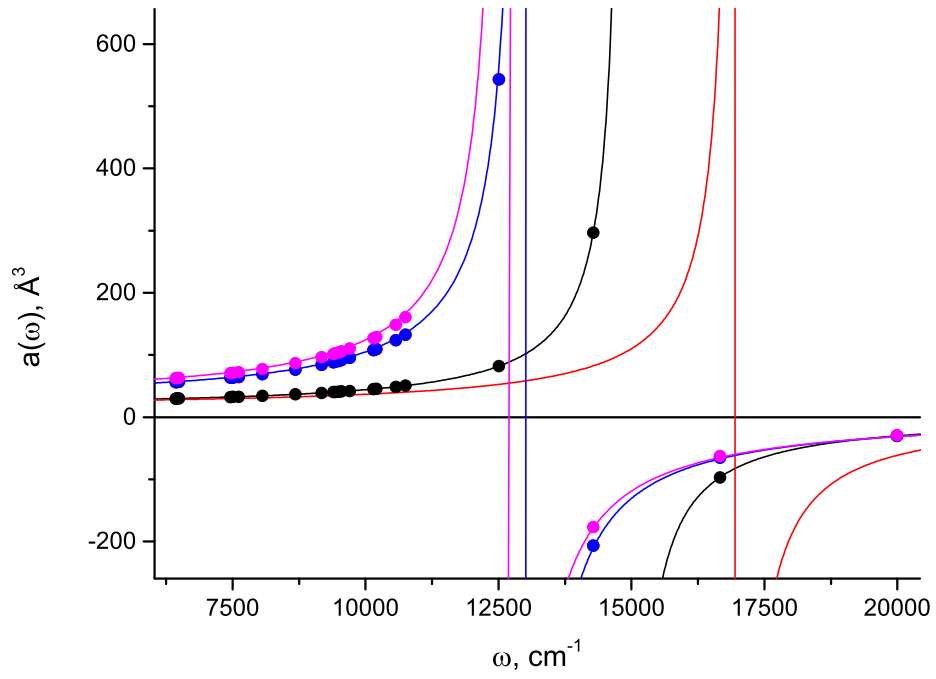


Figure 2: The dynamic dipole polarizabilities of Li, Na, K, and Rb atoms (black, red, blue, and magenta, respectively): solid lines denote the results obtained by formula (5) from Ref. [1] while symbols are the data borrowed from Ref. [3]