HYDRATED SUPEROXIDE CLUSTERS $O_2^-(H_2O)_{1-4}$

V. Ya. Antonchenko, E. S. Kryachko

Bogolyubov Institute for Theoretical Physics,
Nat. Acad. Sci. of Ukraine
(*14b, Metrolohichna Str., Kyiv 03143, Ukraine*)

S u m m a r y

The low-energy portion of the potential energy surfaces of hydrated superoxide clusters $O_2^-(H_2O)_n (n = 1 \div 4)$ are thoroughly studied to resolve, first, a longstanding paradigm of what is the threshold value of n at which water-water hydrogen bonding becomes preferential over the anion-water interaction and, second, to give a solid explanation of the nature of their rather diffuse infrared spectra.