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# Computer simulation of electronic excitations in beryllium

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**Abstract.** An effective method for the quantitative description of the electronic excited states of polyatomic systems is developed by using computer technology. The proposed method allows calculating various properties of matter at the atomic level within the uniform scheme. A special attention is paid to the description of beryllium atoms interactions with the external fields, comparable by power to the fields in atoms, molecules and clusters.

**Keywords:** electronic structure, orbital excitation of electrons, condensation of atoms, beryllium clusters
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