

Electron atomic structure: basis of periodic system of elements

© **Alexey A. Potapov**

Institute for Dynamics of Systems and Control Theory at Siberian Branch of RAS.

Irkutsk, 664049. Jubilayny Loc., 58-25. P.O.B. 176.

Phone: +7 (3952) 463009, 511779. E-mail: alex_p@icc.ru; matrimm@yandex.ru

Keywords: *atom, electron structure, polarizability, system of elements, periodic law.*

Abstract

A Table of periodic system of elements has been proposed which is based on the inherent in atoms dependence of their observable properties on the electron structure; as a measure of atomic properties there acts the energy of bonding valent electrons with the nucleus. The Table is the natural classification of chemical elements. Empirical law of periodicity of chemical elements is being discussed.