Using the BSM-SG atomic models and their physical properties for modeling and analysis in sub-nanometric scale

The BSM-SG atomic models are one of major derivatives of the basic structures of matter super-gravitation unified theory, according to which the near field of atomic nuclei exhibits a space micro-curvature. The re-examination of scattering experiments from this point of view reveals a complex three-dimensional nuclear structure. The effect of space micro-curvature hides the real dimensions of the nuclei, which are with a much larger overall size. Therefore, the coulomb barrier is not as strong as considered by the quantum mechanical models based on the Bohr model of hydrogen. This explains why some nuclear reactions are possible at accessible temperatures. The arrangement of the protons and neutrons in the nuclear structure according to the BSM-SG models matches perfectly the pattern of the periodic table. The nuclear spin also carries a signature of the nuclear configuration and obtains a classical explanation. The revealed structures of BSM-SG atoms and elementary particles exhibit all known quantum mechanical properties while operating with real dimensions. This opens a new opportunity for graphical modeling and analysis in different fields of nanotechnology. The BSM-SG atomic nuclei possess clearly identifiable oxidation numbers and angular directions of the possible chemical bonds. This permits 3D graphical modeling in structural chemistry and biomolecules.

Biography

Stoyan Sarg Sargoytchev has completed his Master's degree in Electrical Engineering from Technical University in Sofia and PhD in Physics from Bulgarian Academy of Sciences. Currently, he is working with the World Institute for Scientific Exploration. He has published more than 70 scientific papers in reputed journals and he is an author of a theoretical monograph BSM-SG.

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