

## FRACTAL NATURE MATERIALS ANALYSIS WITHIN THE NEW AND ALTERNATIVE ENERGY SOURCES

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Important priorities of the modern material science faces the lack of energy and incline towards new and alternative energy sources. The electronic and other ceramics have complex fractal correction based on three different phenomena: ceramic grains have fractal shape as a contour in cross section or a surface, there is the so-called "negative space" (pores and inter-granular space), there is a Brownian fractal motions inside the material in the form of micro-particles flow (ions, atoms and electrons). These factors, make the microelectronic environment as peculiar electro-static/dynamic combination. The stress is on inter-granular supermicro-capacity in function of higher energy harvesting and storage. Fractal theory allows micro-capacitors with fractal electrodes. This is based on the iterative process of interpolation, compatible with the model of grains itself. In this paper, we recognized fractal nature within the wind, solar, electrochemical and other energy and its storage on the way to fractals and energy correlation.

### Biography

Mitic obtained his B.Sc. degree 1982 in Material science at the University of Nis; M.Sc. degree 1990 in Material science at the University of Belgrade and Ph.D. in Material science at the University of Nis. In 1995 he got position of research scientist at the Institute of Technical Sciences of the Serbian Academy of Sciences and Arts; 1999 Mitic was promoted to senior (higher) scientific associate at the Institute of Technical Sciences of the Serbian Academy of Sciences and Arts – elected into the Center for Multidisciplinary Studies, University of Belgrade - main research field: Electronic Ceramic Materials.

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