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Phenomena of interaction of external field and synthesis of new materials

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Abstract

The electromagnetic super-compressibility is found during high frequency electromagnetic field generation by oscillating atoms and molecules in supersonic spiral twisted gas jets flowing from the nozzle with a central cone. This phenomenon is observed in high frequency electric discharges in air on the tip of the nozzle cone. We recorded with high speed shooting that structure of electromagnetic field creates new materials in various spiral twisted configurations of discharge during the milliseconds. During supersonic flowing from the nozzle the field energy density and density of electrons increases in molecular volumes.

Biography

Kh. Khasanov has completed his Ph.D. (1974) and postdoctoral studies (1987) from M. V. Lomonosov Moscow State University, Gas and Wave Dynamics Department, Mechanical-Mathematical Faculty. He was graduated (1969) from Engineering Faculty of Samarkand State University, Uzbekistan. He is Dr. Tech. Sci. (1991), Prof., Senior Researcher. He has 12 patents and has published more than 25 papers.