Annales de la Fondation Louis de Broglie 2010 vol.35 N1, pages 89-103

Nuclei transformations in electric discharge conditions

Ivoilov N., Bikchantaev M., Strebkov O., Khalabuda Y., Gil'mutdinov A., Voloshin A., Protasov A.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The products obtained through a low-energy electric discharge between carbon electrodes in glycerin's water solution are investigated by means of Mass Spectrometry, Raster Electronic Microscopy, and X-ray Fluorescence Analysis. The residue formed during experiment is found to possess chemical composition differing from the initial components by its chemistry and macrostructure. The mechanism and the catalyst of a lowenergy nuclear transformation course are discussed.

Keywords

Electric discharge, Liquid, Low-temperature plasma, Magnetic field, Transformation of chemical elements