Applied Mathematical Sciences 2015 vol.9 N85-88, pages 4351-4359

On solving of some nonlinear problems of plasma physics

Zheltukhin V., Chebakova V., Abaidullin R., Kadyrov R. *Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

Abstract

© 2015 V. S. Zheltukhin et al. The non-linear problem of finding the parameters of interaction of radio-frequency capacitive discharge with the sample placed on the electrode is considered in a local approach. The problem is described by a system of nonlinear initial value problems. Approximate method of solving the problem is proposed. The numerical results for the model problem are given together with their analysis.

http://dx.doi.org/10.12988/ams.2015.55372

Keywords

Difference scheme, Iterative method, Low-temperature plasma, Mathematical simulation, Radio-frequency capacitive discharge