Abstract Submitted
for the GEC10 Meeting of
The American Physical Society

Plasma assisted combustion of paraffin VALERIY CHERNYAK, OLEG NEDYBALIUK, SERGIJ OLSZEWSKI, LEONID BULAVIN, YURIJ ZABASHTA, OLENA AKTAN, VASYL LENDEL, SVETLANA ORLOVSKA, OLEXANDR SVECHNIKOV, FARIDA KARIMOVA, MAXIM SHKOROPADO, TARAS SHEVCHENKO NATIONAL UNIVERSITY OF KYIV, FACULTY OF RADIO PHYSICS, DEPT. OF PHYSICAL ELECTRONIC TEAM, TARAS SHEVCHENKO NATIONAL UNIVERSITY OF KYIV, FACULTY OF PHYSICS, DEPT. OF MOLECULAR PHYSICS COLLABORATION, ODESSA NATIONAL UNIVERSIY, FACULTY OF PHYSICS, DEPT. OF THERMAL PHYSICS COLLABORATION — Gasoline, diesel, and turbine engines could soon burn cleaner or be more fuel efficient through the application of Plasma Assisted Combustion. The using of plasma for rocket engineering can to help resolve a series of additional problems. It is the fuel regression rate or steerability of rocket engine wholly. The general advantages of paraffin as a green rocket fuel are high caloricity, ecological compatibility, safety of keeping and high chemical inertness to external factors, etc. The results of assembly investigations of combustion, plasma assisted combustion and paraffin fusion kinetics are represented in this work.

Valeriy Chernyak

Date submitted: 14 Jun 2010 Electronic form version 1.4