



70th anniversary
of the National Science Center
"Kharkov Institute of Physics & Technology"

VI Ukrainian Conference and School on
Plasma Physics and Controlled Fusion
as a Section of Conference "Physics in Ukraine"



Alushta
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BOOK of ABSTRACTS

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The 6th Ukrainian Conference and School on Plasma Physics and Controlled Fusion, as a section of Conference "Physics in Ukraine", is devoted to the 70th anniversary of the National Science Center "Kharkov Institute of Physics & Technology".

This Conference was sponsored by Ministry of Ukraine for Science and Technology, National Academy of Science of Ukraine, Science and Technology Center in Ukraine.

About 150 abstracts by Ukrainian and foreign authors submitted to the 6th Ukrainian Conference have been considered by Conference Program Committee members. All the abstracts have been divided into 9 groups according to the topics of Conference Program.

We hope that the contributed papers and invited talks, to be given at the Conference, will supply new valuable information about the present status of plasma physics and controlled fusion research. We also hope that the 6th Conference will promote a further development of plasma physics and fusion as well as the scientific collaboration among different plasma research groups in Ukraine and abroad.

Since the abstracts presented in this volume were prepared in the camera-ready form, and the time for the technical editing was very limited, the Editors and the Publishing Office do not take responsibility for eventual errors. Hence, all the questions referring to the context or numerical data should be addressed to the authors directly.

Program and Local Organizing
Committees

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**About forming and acceleration of the electron-ion
rings in the super-conductive system of accompaniment**

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The questions of forming of the electron-ion rings in the super-conductive system of accompaniment in the linear collective accelerator was considered in the work presented on XVIII International Linear Accelerator Conference (Geneva 1996).

In this work we examine the injection and the acceleration of the electron-ion rings by the running magnetic potential pit in the super-conductive system of accompaniment. We found the criterion of stability to the process of injection and acceleration of the rings basing on Lyapynov theory of stability. The possibility to accelerate the rings to the energy of 4 Mev/(m-nucleon) with the radius of electron-ion rings 2+5 cm and the number of ions of order 10^{11} is shoun.

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