

FIRST CIRCULAR

INTERNATIONAL SYMPOSIUM

Entrance Channel Effect

on the Reaction Mechanism in Heavy Ion Collisions

Messina (Italy) , **November 6-8, 2013**

Organized by:

University of Messina

Fondazione Bonino-Pulejo (Messina)

Scientific Program

The aim of this Symposium is to wide and detail the discussion of problems arising in front of experimental and theoretical groups, and to find overlap between different approaches and methods which are devoted to study the same physical object: nuclear reaction dynamics.

The main topics of the Symposium will be devoted to the following well sounded problems of nuclear reactions:

- The synthesis of superheavy elements and the study of exotic nuclei far from the valley of the beta stability. The production mechanism of the observed new elements and isotopes.
- The study of transfer reactions as a way to understand mechanism of evolution of from the deep-inelastic collisions to fusion regime.
- The study of non-equilibrium stage of the reaction mechanism and distribution of the excitation energy between binary reaction products including spontaneous fission products are still important to have correct presentation about whole process.
- The similarities and difference between fusion-fission and quasifission products. Unambiguity in estimation of the realistic fusion cross sections by the experimental and theoretical methods.
- Angular anisotropy of the complete and incomplete fusion reaction products.
- The effect of the nuclear shell structure in formation of the mass symmetric and asymmetric fission products.
- The investigation of the role of angular momentum, mass asymmetry and orientation angles of the symmetry axes of colliding nuclei in the entrance channel in formation of the evaporation residues, mass and angular distribution of the fusion-fission and quasifission products.

The new experimental and theoretical investigations on these and other topics allows one to improve our knowledge about nucleus-nucleus interaction dynamics and to make conclusions about perspectives in the study of the landscape of islands superheavy elements and exotic nuclei far from the valley of the beta stability.

General Information

The Symposium will be held at the University of Messina, and it will consist of invited talks and selected oral presentations.

Registration Fee

The registration fee for a participant at the Symposium will be Euro 250 (including welcome reception, coffee and lunch breaks, Symposium dinner and publication of proceedings). The registration fee for an accompanying person will be Euro 150. Please take attention that the fee will be paid at Symposium desk in cash (euro).

Call for Papers

Participants are encouraged to present their recent works to the Symposium. For each contribution an abstract of one page (A4 format) has to be submitted before **June 30th, 2013**. It is necessary to submit the abstracts electronically by e-mail, sending a Postscript file for the text. Additional information will be found at the Conference Web-site (<http://newcleo.unime.it/Events/ECHIC2013>).

Participants will receive information on the acceptance of their contribution for oral presentation before **July 10th, 2013**. Invited talks and oral presentation of all participants will be published in an ISI international electronic journal.

Symposium Organization and Committees

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Local Organizing Committee: L. Auditore, F. Curciarello, V. De Leo, G. Fazio, G. Giardina, G. Mandaglio, M. Trimarchi, A. Trifirò.

Topics:

Deep inelastic collisions and nucleon transfer reactions

Mass asymmetric and more symmetric entrance channels

Competition between quasifission and complete fusion

Fast fission and Fusion-fission

Investigation on nuclear fragment production

Synthesis of superheavy elements

Deadlines

- Abstract submission **June 30th, 2013**
- Registration for Hotel Accommodation, before **October 10th, 2013**

Contacts

You can find web site of the Symposium <http://newcleo.unime.it/Events/ECHIC2013>

All correspondence concerning the Conference should be sent to: loc@unime.it