TASCA 09

8th Workshop on Recoil Separator for Superheavy Element Chemistry

October 14, 2009, GSI, Darmstadt, Germany

Scope

The main focus of the TASCA 09 workshop will be:

- To discuss within the international community the status of the gas-filled separator TASCA at GSI: the performance of the experimental set up - especially as compared with the needs of the experiments but also as compared with theoretical modeling and with other instruments in the field - and requirements of upcoming experiments.
- To discuss the progress, the status and the future of newly emerging techniques coupled to TASCA – like TASISpec, SHIPtrap or COMPACT - and related technical and scientific quests and prospects.
- To discuss first results obtained at TASCA and related work at other groups.
- To discuss plans and proposals for scientific experiments at and with TASCA, to determine their requirements, and to develop a possible schedule for to the year 2010 and beyond.
- To discuss the envisioned scientific program at and with TASCA – chemical and physical experiments –
  - (i) in the context of the heavy and superheavy element program at other separators and with "pure" chemical methods, and
  - (ii) within the constraints of beam time availability and complementary and competing scientific programs at the GSI.

Topics

All topics in the Scope of this workshop shall be discussed and we ask for submission of contributions. Especially welcome are the following topics:

- First results from the scientific program at TASCA
- Results from the TASCA commissioning program
- Heavy element separation in gas-filled separators
- Theoretical modeling of gas-filled separator performance
- Window and target designs for high intensity heavy-ion beams
- Coupling of chemistry devices to gas-filled separators
- Detectors and data acquisition
  - α-, γ-, and conversion electron spectroscopy in the focal plane
  - in combination with chemistry experiments
- Nuclear structure and stability (half lives, decay modes)
- Nuclear reactions (fusion reactions, target-projectile combinations, cross sections, multi-nucleon transfer products)
- Achievements and perspectives in superheavy element chemistry
- Plans and proposals for superheavy element experiments – physics and chemistry

Organizers & Chair-person

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