乞掲示

理化学研究所原子核グループコロキウム　*2002. 7. 02*

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題目 ： Anomalies in ultra-low energy collisions between nuclei

∗ The seminar will be given in *English.*

日時 ： 2002年 7月 02日 (Tue.)　15:00 –

場所 ： RIKEN Main Bldg. 1F Seminar Room

Abstract

The aim of the LUNA collaboration is to measure the cross sections of the most important fusion reactions of the pp chain and of the CNO cycle at solar energies, below or near the Gamow peak, at a few tens of keV [1]. Here, the accurate knowledge of stopping power is essential for the data analysis, so we started an independent measurement on stopping powers as well.
In the case of ultra-low energy collisions, phenomena of atomic physics play also important role besides nuclear physics. In our study of stopping power in gas we found threshold behavior of electronic stopping power of deuterons in ^{3}He gas [2].
Recently, we started systematic study of electron screening in metallic environments where we found an extremely large enhancement in the electron screening potential for several metals [3].

[1] C.Casella et al.: Nucl.Phys. A706 (2002) 203.
[2] A.Formicola et al.: Eur.Phys.J. A8 (2000) 443.
[3] F.Raiola et al.: Eur.Phys.J. A13 (2002) 377.

∗ Host researcher : T. Motobayashi (RIKEN)

セミナーを希望される方、セミナーのお知らせの email による配送またはその変更を希望される方は下記までご連絡下さい。

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