Name = Laura Surname = Marcelli Nationality = Italian Institution = INFN, Sezione of Address = via della ricerca scientifica 1 Town = I-00133, Rome, Italy Country = Italy

e-mail = <u>laura.marcelli@roma2.infn.it</u>

Abstract = Authors: L. Marcelli on behalf of the PAMELA Collaboration This paper has not already discussed with the Organizer of the Session. Title:PAMELA mission: constraints to cosmic rays propagation from nuclei The PAMELA (Payload for Antimatter Matter Exploration and Light nuclei Astrophysics) experiment is a satellite-borne. The main scientific objective of the PAMELA mission is to investigate the nature of the dark matter that pervades the Universe, the apparent absence of cosmological antimatter, the origin and evolution of matter in the Galaxy.

Accurate measurements of the elemental composition of cosmic rays are required in order to understand the origin, propagation and lifetime of the cosmic radiation. In particular PAMELA will measure the light nuclear component of cosmic rays from Hydrogen up to Oxygen in the interval 200 MeV/n-150 GeV/n.

This paper reviews the capability of the PAMELA subdetectors to identify light nuclei and the preliminary results obtained with PAMELA experiment about nuclear abundances ratios.