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Anisotropy angle of the DST-emissions

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In our previous experiments, it has been found that an angle of asymmetry is present when the breakdown of the Lorenz invariance occurs. We want to make sure that this angle is present as a preferred direction of emission for α-rays and neutrons emitted as a result of piezonuclear reactions, or better, the reactions in deformed spacetime (DST-reactions: deformed spacetime reactions, for more details on the DST-reactions [see G. Albertini *et al.*, *Material and Process for Energy*, ed. A. Mendez-Vilas (Formatex, 2013)]. For this purpose, we analyze the experiment of Ancona for α-ray emission and the experiment of Cagliari for neutrons emission. In this work, we present an example for each group of experiments. These experimental examples are significant because they show the behavior of the emissions detected in all the measures.

Keywords: Deformed spacetime emissions; neutron emissions; alpha emissions.

1. Introduction

Starting from the analysis of the Ancona experiment regarding piezonuclear emissions of α-ray and their direction of emission from compressed steel bars and of the Cagliari experiment about piezonuclear neutrons emission during the failure of suitable material undergoing compression to rupture, this work want only to give a suggestion on the fundamental role that the angle of emission has in these processes that occur when the Lorenz invariance is violated.

Recovering the two main angles identified for the anisotropic emissions of the particles (α-ray for Ancona and neutrons for Cagliari), we define a range of values within which to place the angle corresponding to the direction along which there is violation of Lorenz local invariance as occurred in a previous electromagnetic experiments.[7]