

Status report of the QUAX R&D activity

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The QUAX project is an R&D activity aimed at demonstrating the feasibility of an axion haloscope exploiting the axion electron coupling. To this end, a ferrimagnetic material is coupled to a microwave resonant cavity and a sensitive detector looks for excess power released into the system by an axion wind. In this talk I will present the latest results obtained by the QUAX collaboration in the last year, including the performances of a small scale prototype of a complete detector. Limits on the axion electron coupling, though very weak, are given for an axion mass of about 58 μeV . These limits are the first of this type obtained by using an haloscope.

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