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CYGNUS TPC Update

An update is presented of recent CYGNUS TPC collaboration activities. The CYGNUS concept here is to establish a world-wide array of gas TPCs ultimately capable of searching for WIMP dark matter with nuclear recoil directionality and hence reach below the so-called neutrinos floor. Such technology also has the potential to perform recoil discrimination in the low energy regime below ~10 keV and hence also open the prospect for low mass WIMP searches with nuclear recoil discrimination. Progress and prospects for this concept will be presented including the status of the collaboration and a summary of recent R&D towards the goals of CYGNUS TPC. A particular advance is the use of He as a target additive gas to the negative ion gas SF-6. This opens the possibility of operation at atmospheric pressure.

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