

Dark matter and solar neutrinos with DEAP/CLEAN

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The large difference between the time constants of the two scintillation pulse components of a noble liquid like liquid Argon or Neon provide a very reliable correlation between pulse shape and type of event. This pulse shape discrimination already provides the power of rejecting a background $10^8 - 10^9$ times larger than the signal. A 400 kg LAr detector, MiniCLEAN, is currently under construction, and a 3.6 ton detector, DEAP-3600, under development. The projected sensitivities of these two Dark Matter detectors are illustrated. As the DEAP/CLEAN program is also for p-p solar neutrino detection, the sensitivity to these neutrinos expected from future larger upgrades loaded with liquid Neon is also discussed.

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