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Search for the spin-independently coupling WIMP captured in the Sun/the Earth in Hyper-Kamiokande

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WIMP searches using the captured WIMP by terrestrial bodies are characterized by whether the scattering is spin-independent (in which case the WIMP couples to the mass in the nucleus) or spin-dependent (in which case the WIMP couples to the spin of the nucleus). For spin-dependent coupling case, Hyper-K solar analysis is expected to have strongest sensitivity among currently proposed detectors for search for the WIMP with mass below few tens of GeV(C.Rott's talk in 1st open meeting). In 3rd open meeting, I'd like to also present the view of spin-independent coupling case for the Sun and the Earth captured WIMP, where the sensitivity can be compared with claimed signals from several direct detectors and prospects of future detectors.

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