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# Heavy neutrino search in accelerator-based experiments

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It is known that heavy sterile neutrinos (HSN) of order 100 MeV can serve as an agent of the baryon asymmetry and successful supernova explosions. We explore the feasibility of detecting such HSN by the existing facilities of neutrino experiments. Taking the T2K experiment as a typical example, we find that the HSN are copiously produced at the secondary beam line and their decays taking place inside the near detector can be observed. The sensitivity of T2K at 10^{21} POT is better than that of the previous experiment PS191, which has placed the most stringent bounds on the HSN couplings.

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