Cross sections for SBL physics

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Source	Energy	Signal	Detection reaction	Theory	Experiment
^{51}Cr	500 keV	$\nu_e \to \nu_e$	elastic ν-e scattering	++	+
^{90}Sr/^{144}Pr	1.8-2.3 MeV	$\bar{\nu}_e \to \bar{\nu}_e$	inverse β-decay	+	++
Reactor	1.8-9MeV	$\bar{\nu}_e \to \bar{\nu}_e$	inverse β-decay	+	++
β-decay in flight (^{6}He)	20-200 MeV	$\bar{\nu}_e \to \bar{\nu}_e$	inverse β-decay	+	+
π-decay at rest	30MeV	$\bar{\nu}_\mu \to \bar{\nu}_e$	inverse β-decay	0	++
π-decay in flight	0.3-3 GeV	$\nu_\mu \to \nu_e$	quasi-elastic ν_e	-	0
	0.3-3 GeV	$\nu_\mu \to \nu_\mu$	quasi-elastic ν_μ	-	0
	0.3-3 GeV	$\bar{\nu}_\mu \to \bar{\nu}_e$	quasi-elastic $\bar{\nu}_e$	-	-
	0.3-3 GeV	$\bar{\nu}_\mu \to \bar{\nu}_\mu$	quasi-elastic $\bar{\nu}_\mu$	-	-
μ-decay in flight	0.5-2.5 GeV	$\nu_\mu \to \nu_e$	quasi-elastic ν_e	-	0
	0.5-2.5 GeV	$\bar{\nu}_e \to \bar{\nu}_e$	quasi-elastic $\bar{\nu}_e$	-	-
	0.5-2.5 GeV	$\nu_\mu \to \nu_\mu$	quasi-elastic ν_μ	-	0
	0.5-2.5 GeV	$\bar{\nu}_\mu \to \bar{\nu}_e$	quasi-elastic $\bar{\nu}_e$	-	-
	0.5-2.5 GeV	$\nu_e \to \nu_e$	quasi-elastic ν_e	-	0
	0.5-2.5 GeV	$\bar{\nu}_\mu \to \bar{\nu}_\mu$	quasi-elastic $\bar{\nu}_\mu$	-	-

++ very good constraint, + good constraint, 0 reasonable constraint, - needs improvement