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**The Reaction** $\bar{\nu}_L + p \longrightarrow L^+ + \Lambda$ STEPHAN MINTZ, LINGLING WEN, Florida International University — We obtain total and differential cross sections for the reaction $\bar{\nu}_L + p \longrightarrow L^+ + \Lambda$ where $L$ is an electron,muon, or tau lepton. We do this for values of the incoming neutrino energy from near threshold to several GeV. We obtain the contributions of the various form factors to these cross sections and discuss the prospects for isolating individual contributions. We compare our results to results for the inverse reaction, $L^- + p \longrightarrow \nu_L + \Lambda$ and discuss what might be learned from both types of reactions. We also discuss the possibility of observing this neutrino reaction by the MINER$\nu$A collaboration. We make our method of calculation as phenomenological as possible and make use of SU(3) relations and $\Lambda$ beta decay data to obtain the form factors where possible.

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