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Proton decay: present and future

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The study of nucleon decay provides one of the few approaches to the problem of confronting grand unified theories with experimental data. This program has already been a success. The simplest unification model, minimal SU(5), has been ruled out by the experimental results. Current lower limits on the lifetime of the proton are in the range of 10^{32} to 10^{33} years. The search for nucleon decay requires massive detectors. A search with a sensitivity of 10^{33} years requires a detector with approximately 10^{33} nucleons. Since there are 6 x 10^{29} nucleons per ton of material, this implies detectors of kiloton scale. Over the past two decades, there have been two types of nucleon decay detectors; Water Cerenkov detectors such as IMB, Kamiokande and Super-Kamiokande, and Fine Grain Sampling detectors such as KGF, NUSEX, Frejus and Soudan. I'll review the results from these detectors and the prospects for future detectors. While the data has not yet revealed proton decay, it has been able to show that still more sensitive searches are possible.