Suggestions of a 17 keV Heavy Neutrino.

In 1985 the popular press picked up the story of a new found heavy neutrino by J.J. Simpson of University of Guelph (Ontario Canada). Simpson and later in collaboration with A. Hime published a number of papers on this discovery:
J.J. Simpson, Phys. Rev. Lett. **54**, 1891 (1985)
J. J. Simpson, Physics Letters B **174**, 113 (1986)
J.J. Simpson and A. Hime, Phys. Rev. D **39**, 1825 (1989)
J.J. Simpson and A. Hime, Phys. Rev. D **39**, 1837 (1989)
A. Hime and N.A. Jelley, Physics Letters B **257**, 441-449 (1991)
J. J. Simpson, Physics Letters B **269**, 454 (1991)
E.B. Norman, Bull. Am. Phys. Soc. **36**, 1260 (1991)
B. Sur et. al. Phys. Rev. Lett. **66**, 2444-2447 (1991)
I. Zimen, et. al. Phys. Rev. Lett. **67**, 560-563 (1991)

The conclusion of the 1985 paper was "In Summary, the Beta spectrum of Tritium recorded in the present experiment is consistent with the emission of a heavy neutrino of mass about 17.1 keV…." In the text there is this passage: "The experiments favor a threshold for the emission of a heavy neutrino at about 1.5 $\pm$ 0.2 keV, … Taking the end-point energy of tritium as 18.6 keV gives a neutrino mass of 17.1 $\pm$ 0.2 keV "

In the 1989 papers the neutrino was again found to be consistent with the beta decay of Sulfur 35 using two different sources and two different detectors. Later in 1991 the beta decay of C-14 also showed evidence of the 17 keV neutrino as well as the decay of Iron 55, Nickel 63 and Germanium 71. All these radioactive nuclei were implanted in either Si or Ge crystals.

Also the article "Has supernova SN1987A provided the lifetime of the 17 keV neutrino? Ref: DOI. 10.1016/0370-2693(91) 90200A @ Elsevier Science. Or phy letters B, Vol 269 pg 454-457. The prompt neutrino pulse of SN1987A was consistent with a light 13 eV neutrino, but the second burst was consistent with a heavier neutrino (lifetime between 0.6 and 1.6 X 10^4 sec.

Since these first papers many additional papers have been issued on the existence or more often lately to the non-existence of the 17 keV neutrino. Any web search engine can find these papers on the web. For example:
Michael Turner. PRD Vol 45, #4, Feb 15 1992.
Super-Heavy Neutrinos: Who Ordered that? By John G. Cramer 5/10/91, Analog Science Fiction & Fact Magazine.
Gregg Evan Berman's Princeton U. PhD thesis, 1994 (no evidence in S 35 specturm)
Douglas R.O. Morrison, Nature 366, 29-32 (1993) "*The rise and fall of the 17 keV neutrino."*

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