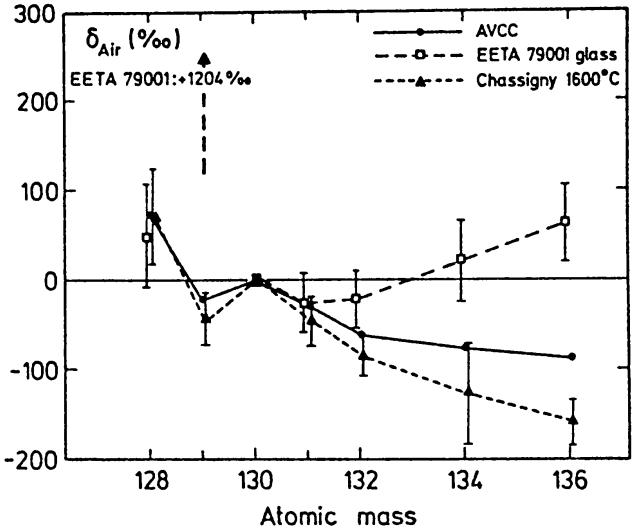

Fig. 2 **Isotopic composition of trapped Xe in Chassigny, relative ^{130}Xe and terrestrial atmosphere. Note low abundance of ^{129}Xe and fissiogenic isotopes relative to EETA 79001 glass (Martian atmosphere?).**

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s-PROCESS Xe AND Kr AND Ne-E IN A ^{13}C RICH MURCHISON SAMPLE; NOBLE GAS ANALYSIS BY STEPPED COMBUSTION

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Some of the more interesting isotopic anomalies in meteorites are located in minor phases that are extremely resistant to chemical treatments. Among these are Ne-E (Black and Pepin, 1969; Eberhardt, 1978; Alaerts *et al.*, 1980) and s-process Kr and Xe (Srinivasan and Anders, 1978; Alaerts *et al.*, 1980), which have been detected in samples that at the same time contain a carbon component enriched in ^{13}C by about a factor of two (Swart *et al.*, 1983). Swart *et al.* (1983) have concluded that s-Xe and Ne-E (L) — that subcomponent of Ne-E that is released at low temperature in pyrolysis (Eberhardt, 1978) — are related to isotopically heavy carbon. Their argument involved a comparison of stability in pyrolysis (for noble gas retention) and combustion (carbon). Since it is preferrable to compare stability under identical conditions, we have analyzed for its noble gases by stepped combustion Murchison sample CFP. This sample had been prepared using HF/HC1 and $HC10_4$ and analyzed for carbon by Yang and Epstein (1984), who found a δ^{13}C of +977‰ in the highest temperature step. We followed their schedule except for an intermediate combustion step at 1000°C.