

Abstract Submitted  
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**A Search for Additional Evidence for a Recent Nearby Supernova**

MERRIT MALLORY, JAMES BALL, Retired — Motivated by the finding of possible recent (2.1 – 2.8 ma) supernova (SN) remnants on the surface of the moon in the form of  $^{60}\text{Fe}$ , we have examined published data of the Apollo rock and soil core samples for additional evidence. Our main criterion has been to compare the ratio between  $^{60}\text{Co}$  (the daughter of  $^{60}\text{Fe}$ ) activity and possible  $^{26}\text{Al}$  excess activity. This ratio of the gamma ray activity for these isotopes (15% at SN creation) has been detected in satellite data and predicted by supernova elemental abundance calculations. Of the data examined for 7 cores, three of these show suggestive possibilities of an excess of  $^{26}\text{Al}$  at a depth in the core consistent with an age of 2 to 3 ma. While these results are complicated by low expected counting rates, as well as the known presence of gardening effects and concerns about additional mixing during the sampling and subsequent handling, they suggest the desirability of a more thorough radiological reexamination of these samples for the presence of  $^{60}\text{Co}$  decay and if sample material exist, AMS could be used to search for live  $^{60}\text{Fe}$ .

Merrit Mallory  
Retired

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