

## <sup>60</sup>Fe abundance in micrometeorites

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The observation of <sup>60</sup>Fe in ferromanganese crusts and sediments has triggered a series of investigation about the origin of this radionuclide in the marine record. The original interpretation was that the <sup>60</sup>Fe originated from supernovae material [1-2]. It has been supported recently demonstrating a multiple and global influx [3]. However, it has also been suggested that <sup>60</sup>Fe produced by cosmogenic reactions in micrometeorites could have been the source of variations in <sup>60</sup>Fe [4-5].

In this study, we will present the first direct AMS (Accelerator Mass Spectrometry) measurement of the abundance of <sup>60</sup>Fe in a large sample of micrometeorites collected in cryoconite from Greenland.

Taking into account the flux of micrometeorites to the Earth and its range of variations, we will discuss (i) its implications for the past sedimentary record of supernovae and (ii) the constraints on the irradiation history of the grains.

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