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Differences in the $\Delta^{17}\text{O}$ between Earth, Moon and enstatite chondrites.

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We have developed a new analytical protocol for high precision analyses of $\Delta^{17}\text{O}$ in rocks and minerals. The new technique allows identification of ppm level variations in $\Delta^{17}\text{O}$. New data on terrestrial and lunar rocks and enstatite chondrites reveal marked differences in $\Delta^{17}\text{O}$ between these bodies with $\Delta^{17}\text{O}(\text{Earth}) < \Delta^{17}\text{O}(\text{Moon}) < \Delta^{17}\text{O}(\text{EC})$.

We suggest that the observed difference in $\Delta^{17}\text{O}$ between Earth and Moon are due to different proportions of Theia. Implications will be presented.

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