

Interactive comment on “A penetrator for making thermal measurements in a gas-filled planetary regolith” by M. D. Paton et al.

Anonymous Referee #2

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The manuscript is giving attention to thermal modeling of penetrating devices designed for measurements in planetary regolith. An interesting topic worth to be studied. As referee #1 mentioned before the approach to the subject is valid and the method of modeling is based on a proven basis.

I have similar doubts about the conclusions as referee#1. I also cannot see a significant difference in the temperature profiles shown in Fig. 11 and 12 to a usual equilibrium curve between heat flow and heat production for this kind of probes. More information if there is a substantial deviation from an exponential heating curve to confirm the data interpretation of the author would be of interest. Since referee#1 has already discussed the in my mind relevant points concerning the interpretation of the data like the influence of the surrounding material and the accuracy of the

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measurements, I just want to make some minor notes (see attachment).

Please also note the supplement to this comment:
<http://www.geosci-instrum-method-data-syst-discuss.net/1/C58/2012/gid-1-C58-2012-supplement.pdf>

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 1, 109, 2011.

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