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Interactive comment on “Magnetic signature of large exhumed mantle domains of the Southwest Indian Ridge: results from a deep-tow geophysical survey over 0 to 11 Ma old seafloor” by A. Bronner et al.

A. Bronner et al.

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Dear editor,

We would like to thank the anonymous reviewer #1 for his careful analysis that improves our manuscript. We looked into the reviews and corrected most of the points raised. We enclosed our revised manuscript and corrected figures. For more clarity, below are detailed the main modifications to the manuscript and figures. We are looking forward for a decision to publication,

C1093

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Yours sincerely,

The authors.

Specific comments:

- The terms “Box 1” and “Box 2” were removed from the study. Instead, “Western” and “Eastern corridor” are used. - To support our work, three recent references were added to the manuscript: (Bronner et al., 2012; Maffione et al., 2014; Tucholke and Sibuet, 2012)

Changes to the figures:

Figure 1:

- The bathymetric charts were faded to highlight overlying information. - A meter scale was inserted. - Symbols of magnetic picking were enlarged.

Figure 2:

- Geographic directions were indicated on the figure.

Figure 3:

- For better visibility, the edges of the volcanic seafloor were indicated as black thin lines instead of red lines. - Label of the magnetic anomaly and NRM scale were reported on the figure. - The magnetic anomaly was removed from the figure. - NRM value of dredges #21 and #33 were too small to be visible; they were thus highlighted using arrows. - In Fig. 3b, the bigger circle associated to dredge #30 corresponds to a sample that show anomalous magnetization overprint certainly due to the sampling processes. It was removed from the study but we forgot to remove it from the figure. The associated circle is thus removed from the revised figure 3b.

Figure 4:

- A meter and a bathymetric scale were added to each corridor. - The volcanic seafloor

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is now represented as faded areas for more visibility. - The magnetization scale is the same for both corridors; this was indicated in the figure caption.

Please also note the supplement to this comment:

<http://www.solid-earth-discuss.net/5/C1093/2014/sed-5-C1093-2014-supplement.pdf>

Interactive comment on Solid Earth Discuss., 5, 2449, 2013.

SED

5, C1093–C1102, 2014

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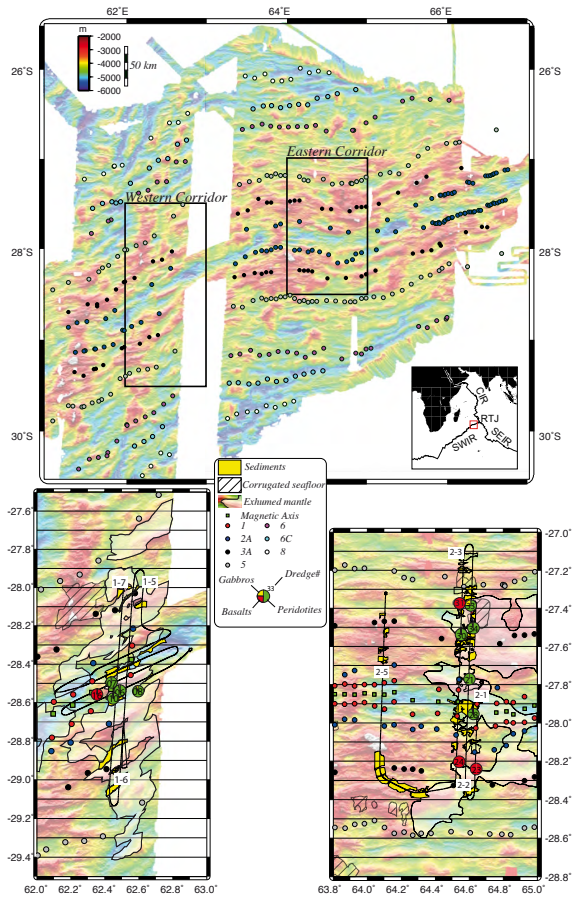


Fig. 1. Fig.1

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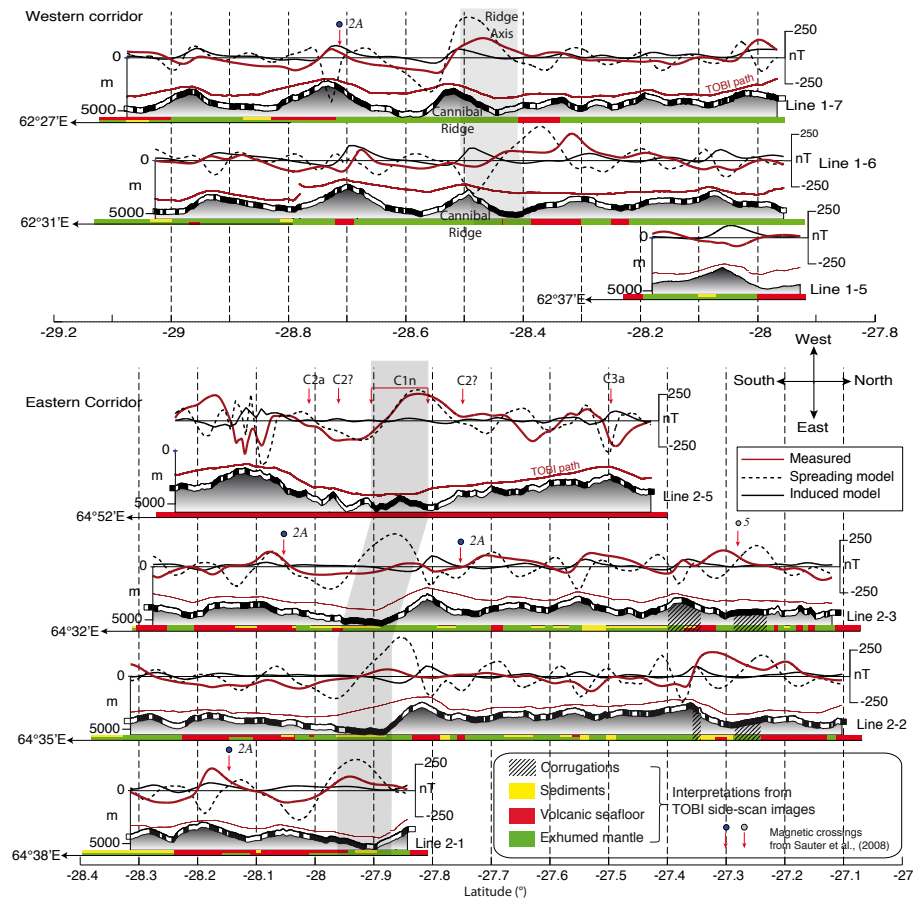


Fig. 2. Fig.2

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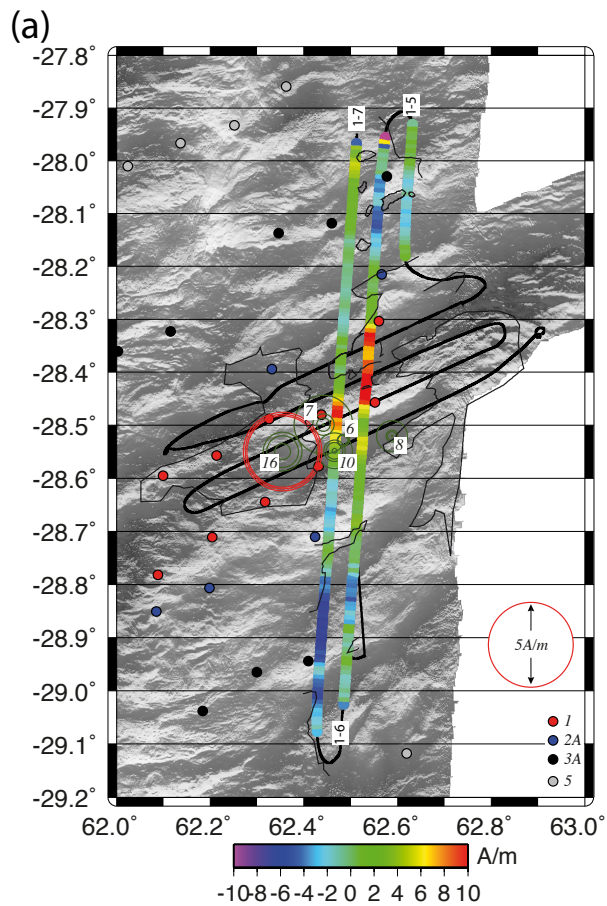


Fig. 3. Fig.3a

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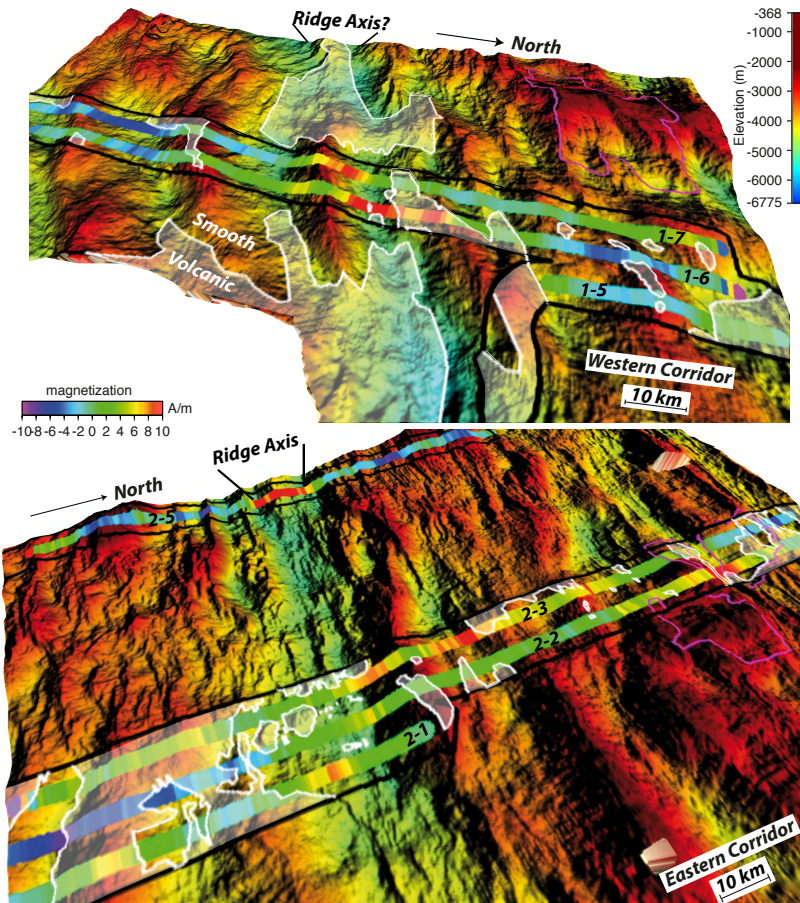


Fig. 5. Fig.4

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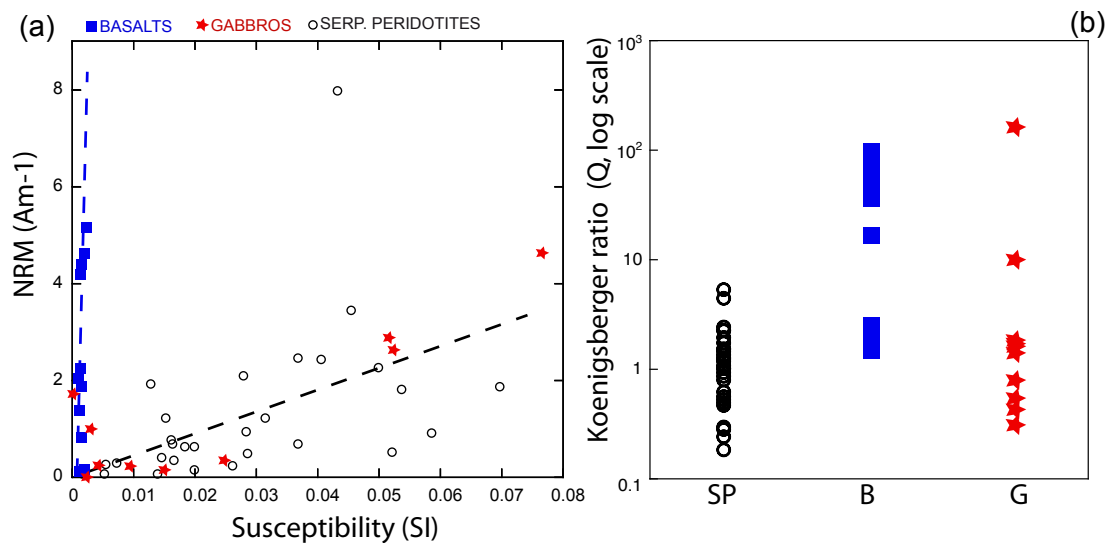


Fig. 6. Fig.5

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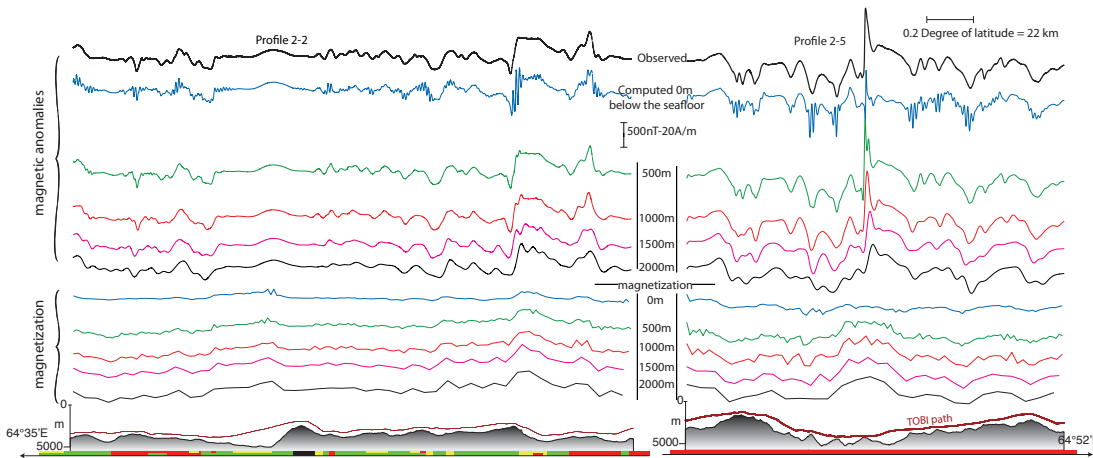


Fig. 7. Fig.6

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