

## REVIEWER COMMENTS

Paper: **V. M. Hamza and F. P. Vieira Global distribution of the lithosphere-asthenosphere boundary: a new look**

### GENERAL:

**It is a good paper. It is suggested to publish it in the SE after minor technical corrections.**

### DETAILS:

Aspects:

1. Does the paper address relevant scientific questions within the scope of SE?  
YES
2. Does the paper present novel concepts, ideas, tools, or data?  
YES
3. Are substantial conclusions reached?  
YES
4. Are the scientific methods and assumptions valid and clearly outlined? YES
5. Are the results sufficient to support the interpretations and conclusions? YES
6. Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)?  
YES
7. Do the authors give proper credit to related work and clearly indicate their own new/original contribution?  
YES
8. Does the title clearly reflect the contents of the paper? YES
9. Does the abstract provide a concise and complete summary?  
YES
10. Is the overall presentation well structured and clear?  
YES
11. Is the language fluent and precise? YES
12. Are mathematical formulae, symbols, abbreviations, and units correctly defined and used?  
YES
13. Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated?  
See Item 16
14. Are the number and quality of references appropriate? YES
15. Is the amount and quality of supplementary material appropriate? YES

### 16 Other Comments:

**Fig 3, Page 306:** It is proposed to use a bigger font for words “FHS Model”, “GDH Model - HSC”, “GDH Model - Plate” they to be better readable. Fonts used along vertical and horizontal axes for the upper and lower plates should be equal.

**4.3 Thermal model of continental crust, Page 293:** Lines 11 – 12: ...For a medium with depth **dependant** thermal conductivity ...

Proposed changing the word “dependant” for “dependent”.

**4.4 Mantle heat flow, Page 294:** Lines 4 – 5 ...” the vertical distribution of thermal parameters (thermal conductivity and heat production),....

”Proposed ...” the vertical distribution of thermal conductivity and heat production”

**5 Global distribution of LAB depths? Page 296:** Line 11 “...and the Sao Francisco Craton” in South America.”

Proposed: “...”and the San Francisco Craton in South America.”

**References, Page 301:** Line 5 “...in: Terrestrial Heat Flow Studies and...”

Proposed: “...in: Terrestrial Heat Flow Studies and...”

Line 11 “...”Sclater, J. G., Lawver, L. A.,....”

Probably should be ...” Sclater, J. G., Lawyer, L. A., ?”

Line 19: ...” ...Earth Planet. Sci. Let...”

Proposed...” ...Earth Planet. Sci. Let....”.

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