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Interactive comment on "Evidence of magma activation beneath the Lunayyir basaltic field (Saudi Arabia) from attenuation tomography" *by* I. Koulakov et al.

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Dear Reviewer,

Thanks a lot for considering our paper and for your friendly and constructive comments. We have considered all of them and implemented to the new version of the paper. I hope you will find the paper improved.

We attach the corrected manuscript with figures. The changed parts of the text are highlighted with violet color.

Best regards,

Ivan Koulakov, on behalf of the coauthors.

Reply to the comments of the reviewer 1 (initial reviewer's comments are indicated with REV; our replies start with "AUTH"):

REV: 1. The topic and results interesting, but clarification or more details needed about the dependency on velocity mode. Please consider the following:

On Page 1408, authors claim that the attenuation results are "completely independent" on velocity model. But in the text just above this comment, author also said "velocity model have minor effect upon the computed attenuation models". How different is "minor" vs "completely independent"? Please add data or figures to demonstrate the effect of starting velocity model.

AUTH: We have added a new figure with result of attenuation tomography based on the 1D velocity model (Figure 5 in the new version). The comparison of two attenuation solutions based on different velocity is described in Lines 211-216.

REV: Page 1403, first "Fig.1b" should be "Fig.1a"? 3. On page 1409 "Fig.7" should be "Fig.6"? AUTH: All figure numbers have been updated.

Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/6/C714/2014/sed-6-C714-2014-supplement.pdf

Interactive comment on Solid Earth Discuss., 6, 1401, 2014.