

## ***Interactive comment on “Grassland fire effect on soil organic carbon reservoirs in semiarid environment” by A. Novara et al.***

**Anonymous Referee #2**

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**General comments** As general comments on the manuscript, I consider that in the present form, the evaluation of the manuscript only need minor revision. Results and discussion must be rewrite in a better form taking into accounts their objectives to improve the work. I hope authors find the comments constructive to improve the paper. Please take into account that I have evaluated the scientific contents in the paper and the format request by the Journal, but English is not my native language, so I think others reviewers did this well than me.

**Specific comments** Abstract Line 14: change C by SOC Introduction Line 20: replace a by an experimental fire Line 24: Granged et al, 2011 a or b?? Please check Material and methods Line 3: delete grassland Line 4: delete grassland respectively Line 5: Why do you use a natural wildfire and not a experimental fire? Your objective is to

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quantify SOC stock change as a result of an experimental fire. ... Line 8: please add more information about thermocouple. How many?depth? Line 20: how did you measure aboveground biomass? Results and discussion Please rewrite in a better form For instance, the values are in the figure 1. Please comment what happened after fire. The information in line 1 of page 888 have the same information than the first paragraph of page 887. Line 7:  $\delta^{13}C$ , discuss briefly the added information of this analysis. Line 12: Delete “In our experiment. ... Line15: is 13? Or 12? Figure 3 Line 18: lowest?English review Line 24: more discussion about time of burning is needed. The maximum temperature is 480°C. Combustionof OC 450-500°C. Line16-28: rewrite and discuss with paragraph 6-15 of page 888. Conclusions Sentence 1 and two are equal. Please rewrite. Reference Review Gristina et al., 2008 in the text Change Ûbeda by Ûbeda also in Line 22 of page 887

Figure 2. Add colors to differentiate before and after fire. Add SOC (g/kg) in axes X. Add parenthesis before and after °C.

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Interactive comment on Solid Earth Discuss., 5, 883, 2013.

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