



Interactive comment on “Rheological control on the dynamics of explosive activity in the 2000 summit eruption of Mt. Etna” by D. Giordano et al.

D. Giordano et al.

daniele_giordano@hotmail.com

Received and published: 27 April 2010

Revisions to the Manuscript (SE-2009-12) entitled: “Rheological control on the dynamics of explosive activity in the 2000 summit eruption of Mt. Etna”.

Dear Prof. Dingwell,

Please find enclosed our reply to reviewer comments for the manuscript entitled: “Rheological control on the dynamics of explosive activity in the 2000 summit eruption of Mt. Etna” authored by D. Giordano*, M. Polacci, P. Papale, L. Caricchi.

The manuscript presents an interdisciplinary study where the analysis of textural and rheological features of erupted products were put together with fluid dynamical modelling to understand the role of rheological features on controlling the dynamics of the

C25

explosive activity and the factor that might affect the repeated transition from Strombolian and fire-fountaining.

The above is what the paper is devoted to investigate/evaluate and our comments to the reviewer want to remark what the main objectives of the manuscript are. We mostly respected the lines followed in the original manuscript. In revising the text, to accomplish what required from the reviewer (Prof. Melnik) and we believed to be possibly still unclear, we added two additional paragraphs after periods after line 202 and 223 of the original manuscript. — Please also note that my institutional details have been also changed (by adding my new institutional address first and new email address, but also maintaining my previous institutional address) as they follows:

a Institut de Ciències de la Terra Jaume Almera (ICTJA), CSIC, c/Lluís Solé Sabarís s/n, 08028 Barcelona, Spain; b Dipartimento di Scienze Geologiche, Università degli Studi di Roma Tre, Largo San Leonardo Murialdo, 1, 00154 Roma, Italy Email: dgiordano@ija.csic.es

Luca Caricchi address has also been modified together with the acknowledgements.

Attached you can find a pdf file (Giordano_et_al_2010_revised) including both the reply to the reviewer comments and the full version of this revised manuscript.

With kind regards,

Sincerely,

Daniele Giordano

Please also note the supplement to this comment:

<http://www.solid-earth-discuss.net/2/C25/2010/sed-2-C25-2010-supplement.pdf>

Interactive comment on Solid Earth Discuss., 2, 19, 2010.

C26