

Bulletin of Volcanology

Magma Dynamics and Cooling in Sub-volcanic intrusions: Insights on eruption potential from Finite Element Modeling

Erika Ronchin^{1,2}, Adelina Geyer Traver³, Steffi Burchardt^{4,5}, Christoph Hieronymus⁴, Tobias Mattsson⁴

¹ Department of Earth Sciences, Sapienza University of Rome, Rome, Italy.

² CREA Research Centre for Viticulture and Enology, Gorizia, Italy

³ GEO3BCN, CSIC, Lluís Solé i Sabarís s/n, 08028 Barcelona

⁴ Department of Earth Sciences, Uppsala University, Uppsala, Sweden

⁵ Centre for Natural Hazards and Disaster Science, Sweden

Corresponding author: steffi.burchardt@geo.uu.se

SUPPLEMENTARY INFORMATION

Figure S1

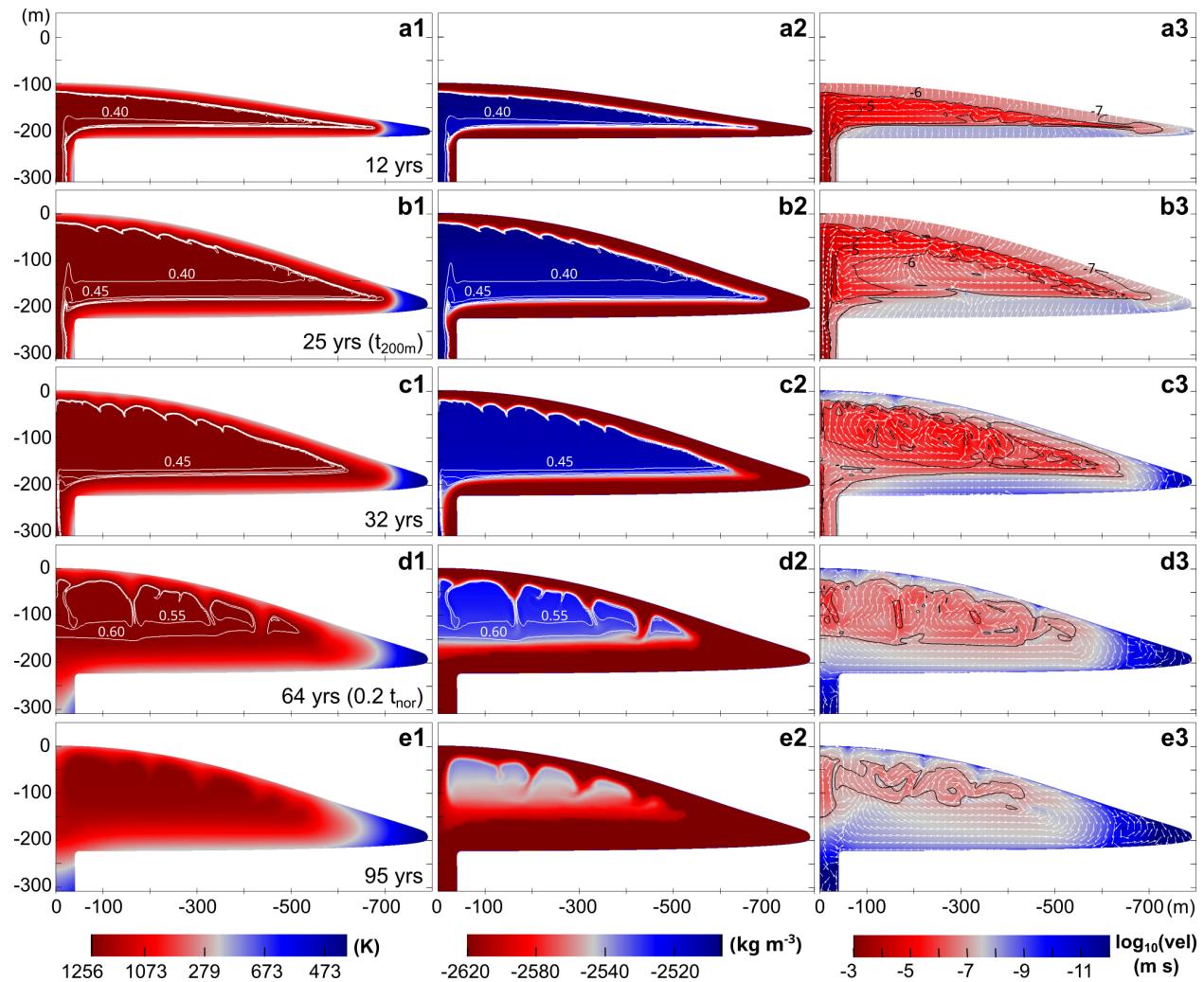


Fig. S1 Magma flow physical properties evolution during sub-volcanic intrusion growing and post-growth cooling phase, exemplified for the model *intruded_25years*. Distribution of temperature (first column), density (second column), and velocity (third column) of magma within the modelled growing sub-volcanic intrusion at representative times: 12 yrs (a), 25 yrs (b), 32 yrs (c), 64 yrs (d), and 95 yrs (e). The white contours and numbers represent the amount of solid fraction (ϕ).