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# Xenocrysts and phenocrysts of the Minopoli 2 eruption of the Campi Phlegrei caldera complex (9500 BP).

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Feldspar, clinopyroxene and biotite crystals as well as groundmass glass were separated from two levels of the Minopoli 2 air fall deposit. Both alkali and plagioclase feldspars are present and all phenocrysts have been analysed as single grains (3-20ng Sr) for Strontium isotope ratios. These were found to span the range of $^{87}Sr/^{86}Sr$ from 0.7067 to 0.7085. At least four components need to be considered to explain the observed distributions, corresponding to the Campanian Ignimbrite, the Neapolitan Yellow Tuff, Pre-Campanian materials and also crystals related to the carrier magma.

Analysis of the zonation of the Minopoli 2 phenocrysts by microprobe and microdrilling Sr analysis will help to address the particular mixing mechanisms by which this crystal assemblage was created. The results so far highlight the complex heterogeneity of crystal populations within Campi Phlegrei magmas and the problems apparent in interpreting such a complex system relying solely on whole-rock scale analyses. It is hoped that by understanding the extent of inheritance from earlier magmas something can be learned about magma supply and residence within the Campi Phlegrei system.

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