

Supplementary information

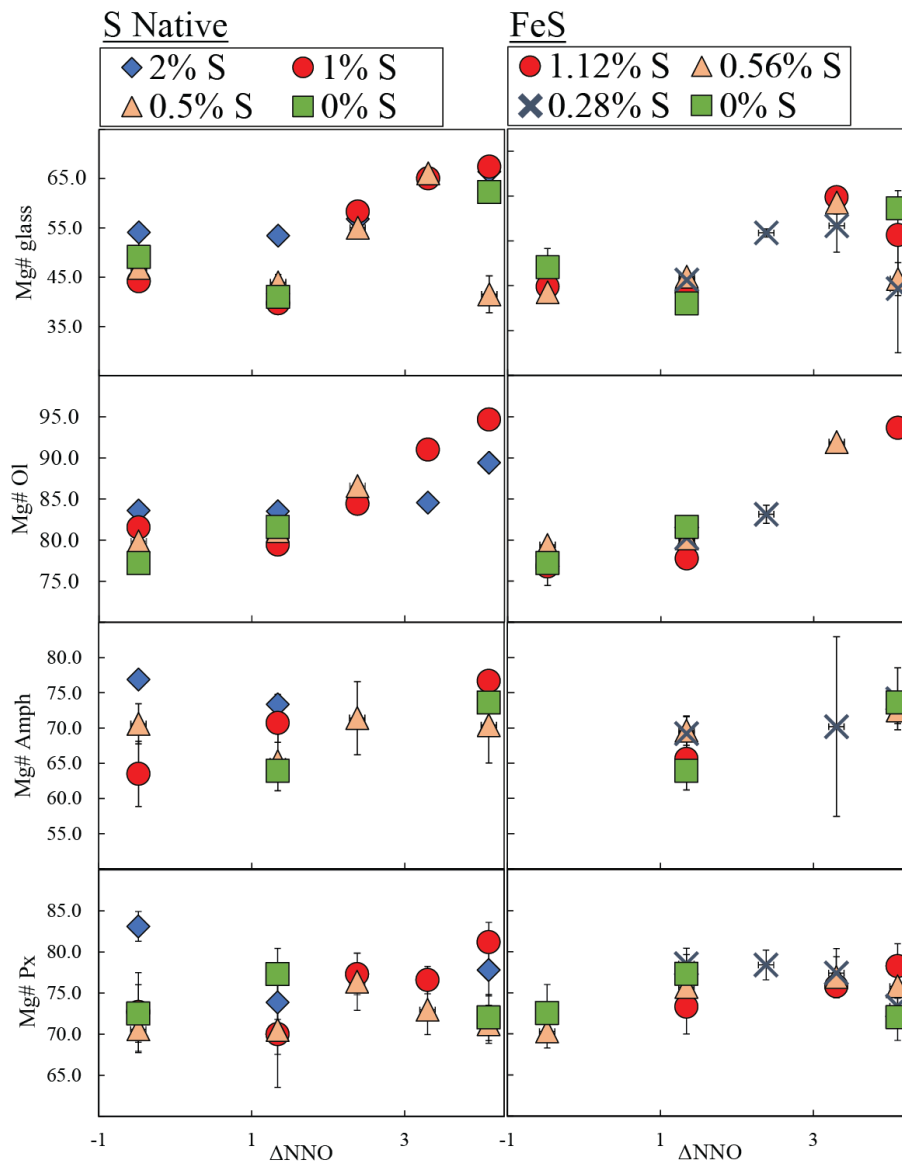


Fig.a Relationship between the Mg# of glass, olivine, amphibole, pyroxene and the  $\Delta\text{NNO}$ . When not shown, the error bars are smaller than the symbol size.

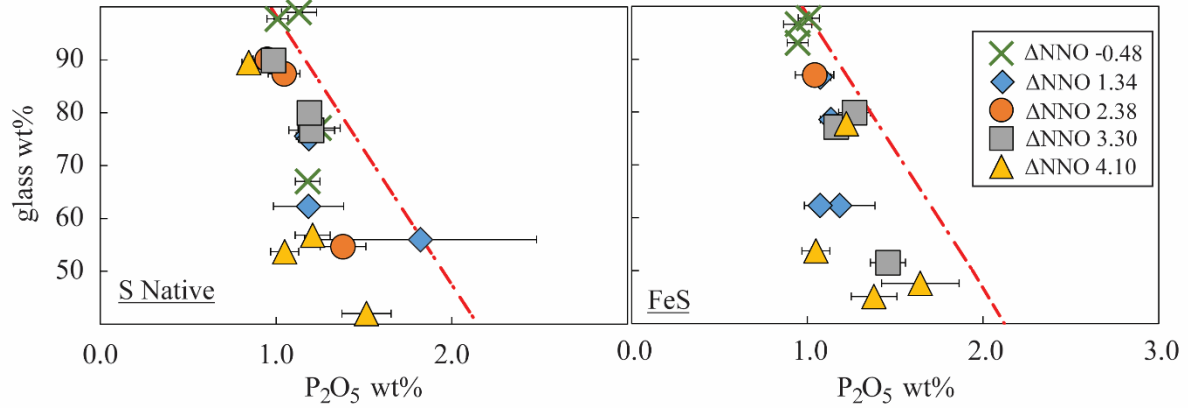


Fig.b The weighted percent of the glass calculated with ImageJ is compared with the concentrations of  $P_2O_5$ , which is taken up in apatite

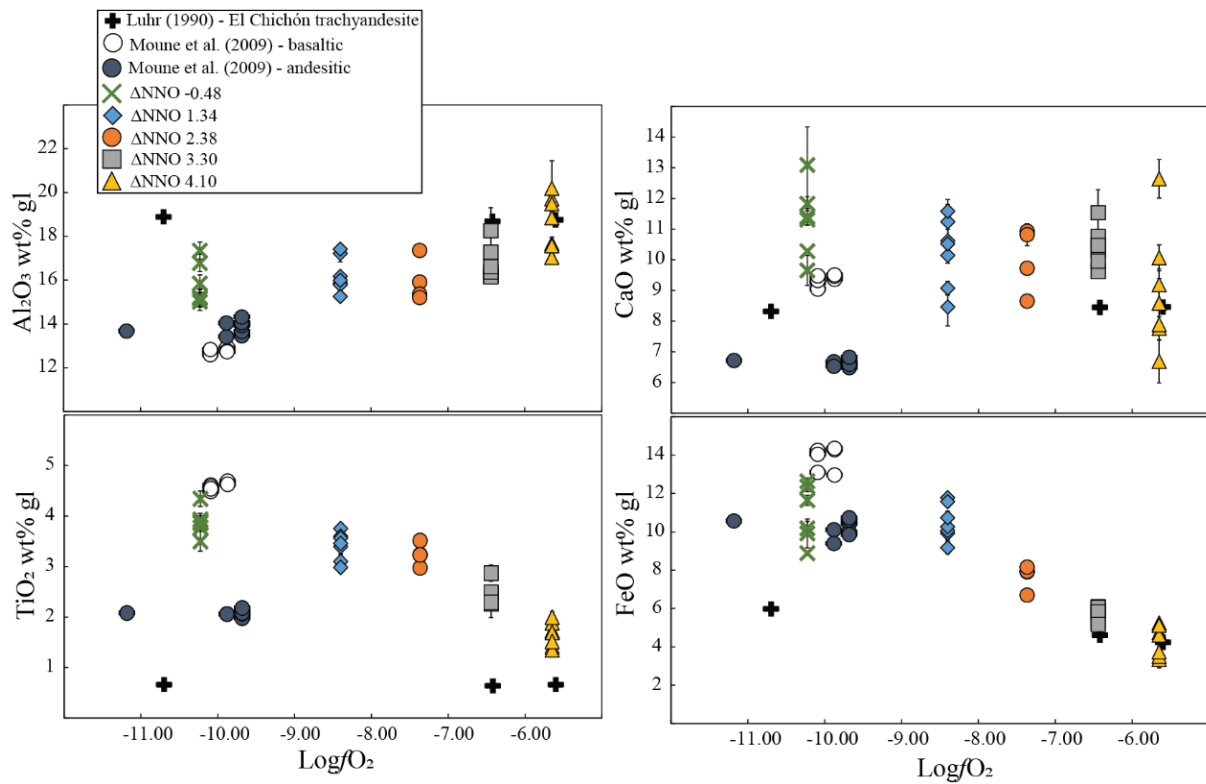


Fig.c Concentration of major element versus  $\text{Log}fO_2$ . The experiments are compared to the water-saturated, 1050°C and 200-300 MPa experiments of Moune et al. (2009) and the composition A (trachyandesite, at 1000°C, 200 MPa) from Luhr (1990).