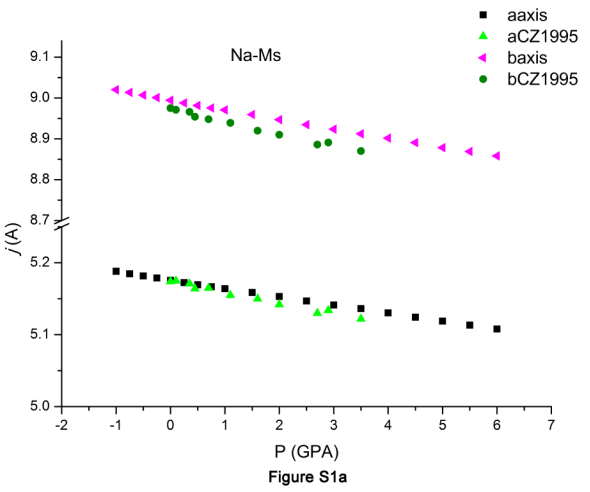
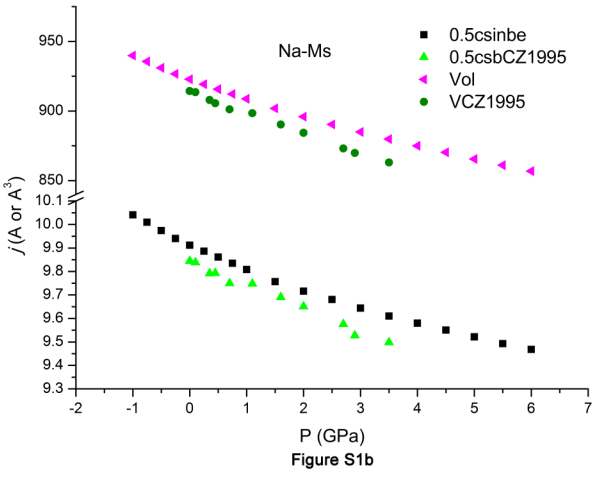
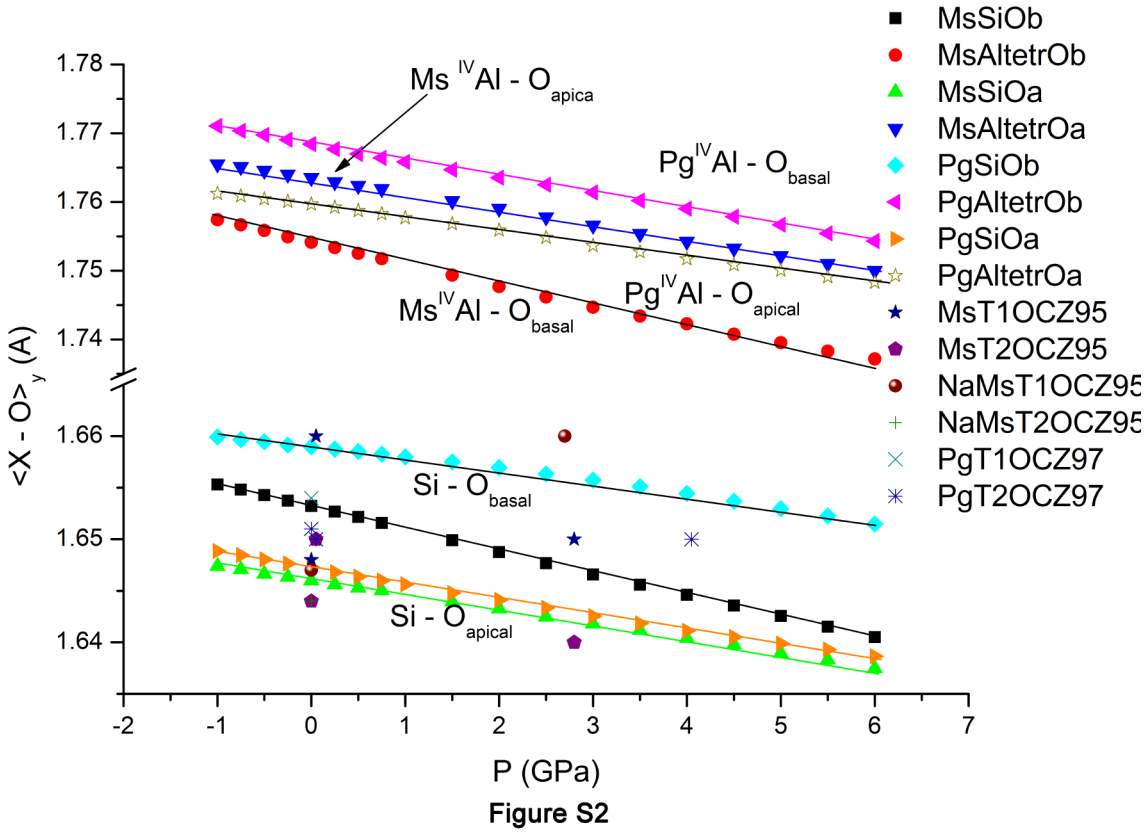
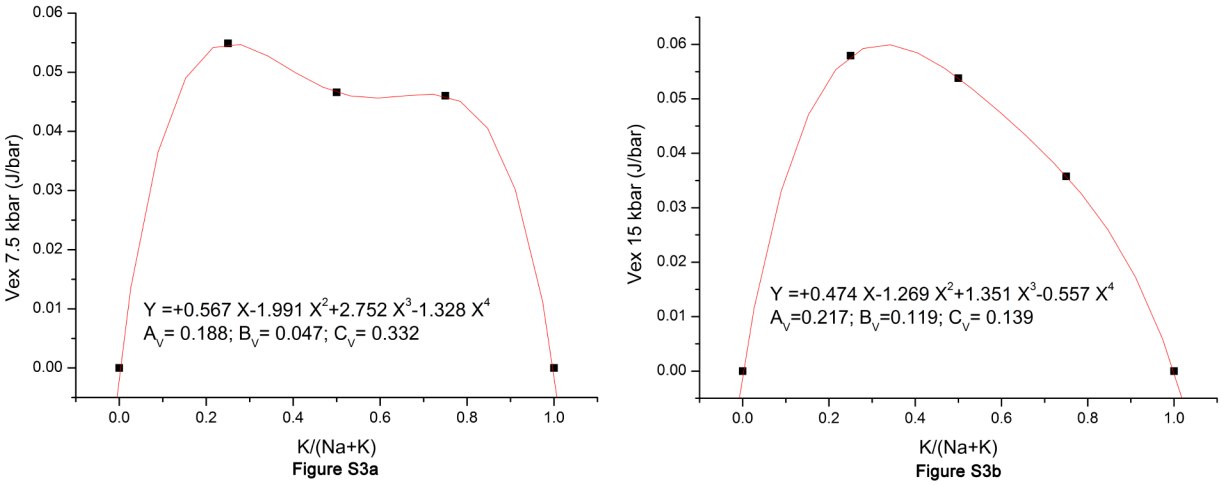




Supplementary Figure 1. (**a**) Variation of *a* and *b*, (**b**) 0.5*c*sinβ (Å) (0.5csinbe or 0.5csb in the insets) and volume (*V* or Vol, Å^3), of X_{Na} = 0.25 (Na-Ms), respectively, as a function of pressure. In the insets: *j*CZ1995 means values of parameter *j* from Comodi and Zanazzi (1995); where *j* is either *a*, *b*, 0.5*c*sinbe/0.5csb or volume.



Supplementary Figure 2. Variation of Si/^{IV}Al – O$_{b(basal)/a(apical)}$ average distances (Å) as a function of pressure (GPa). Ms/Pg/NaMsT*i*OCZ95/97 mean tetrahedral cation O bond (T*i*-O) distances from Ms, Pg or Na-rich Ms from Comodi and Zanazzi (1995) or (1997), where *i* means site 1 or 2.



Supplementary Figure 3. Excess volume V^{ex} (J/bar) at different pressures as a function of X_K. (**a**) 7.5 kbar, and (**b**) 15 kbar. Values in the insets are from interpolated quadratic polynomial, and A_V, B_V and C_V are the coefficients of Equation 7 for the V^{ex}, at 298 K. Volumes have been corrected as a function of temperature (Holland and Powell 1998).