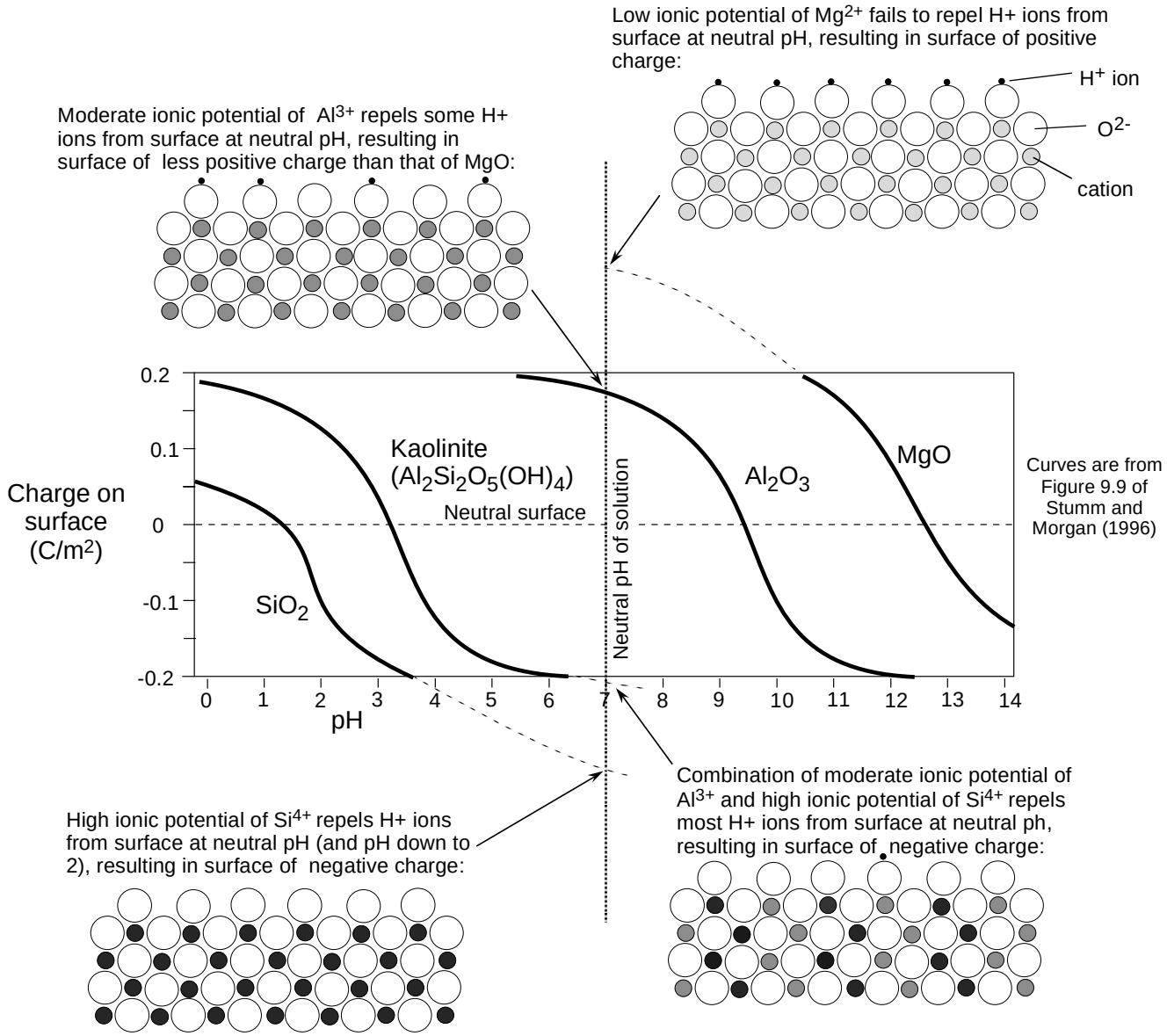
An explanation of "point of zero charge" - Part II

A plot for four minerals, and an explanation of why they vary:



A bit of the periodic table:

Atomic number:	11	12	13	14	15	16
Ion:	Na^{1+}	Mg^{2+}	Al^{3+}	Si^{4+}	P^{5+}	S^{6+}
Icon:	○	◔	◑	●	●	●
Ionic potential: ($\frac{Charge}{radius}$)	$\frac{1}{0.95}=1.1$	$\frac{2}{0.65}=3.1$	$\frac{3}{0.50}=6.0$	$\frac{4}{0.41}=9.8$	$\frac{5}{0.34}=14.7$	$\frac{6}{0.29}=20.7$

Ions shown above

The point: the greater the ionic potential of the cation(s) in the mineral, the greater the repulsion of H^+ ions from that mineral's surface to give a surface of negative charge that will adsorb cations.