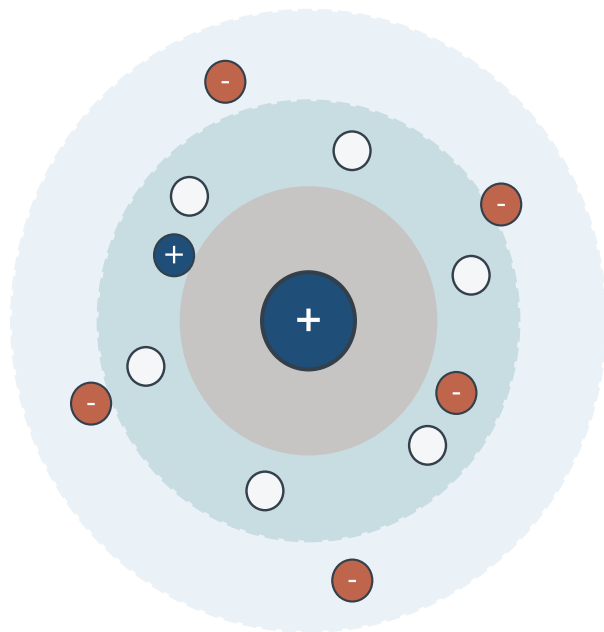


Electrolyte EOS: physics around a solvated ion



solvated cation, concentric view

Born solvation cavity $\rightarrow a_{Born}$



continuum dielectric charging
of the bare-ion cavity

Debye-Huckel ionic atmosphere $\rightarrow a_{DH/MSA}$



diffuse cloud of counter-ions that
screens the central charge

Primary hydration shell $\rightarrow a_{hydration}$



oriented solvent molecules bound
to the ion at short range

Contact ion pairing $\rightarrow a_{assoc}$



ion pairs with no solvent between them,
especially at high concentration