

Aqueous Surfaces of Iron Salts

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Ions hydrate in water to form solvated complexes. The nature of their solvation and thus speciation is related to their surface properties and are unique to the salt where the counter ion plays an important role. Organization within the aqueous surface and subsurface regions occurs and gives rise to interfacial electric fields, the surface potential. Iron salts and their complexation are immensely complex and there is little current understanding of their surface behavior. Here, surface potential, surface tension, and vibrational sum frequency studies provide insight into the hydrated iron speciation at the air/aqueous interface.