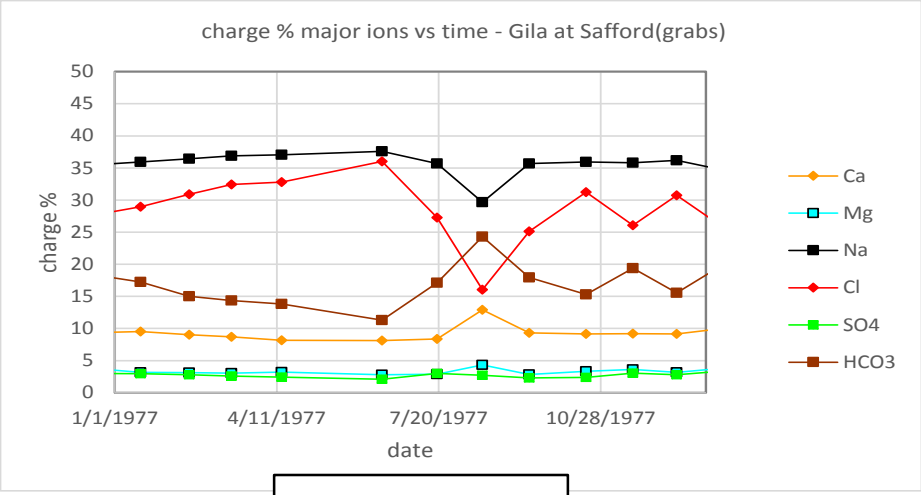
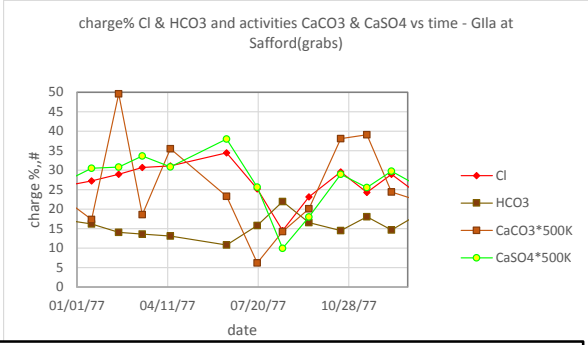
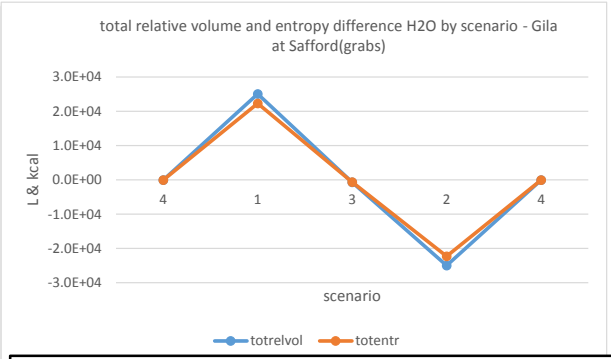
Patterns and Relations in Gila River Chemistry and Thermodynamic Process: Database Description and Evolution (graphical synopsis)



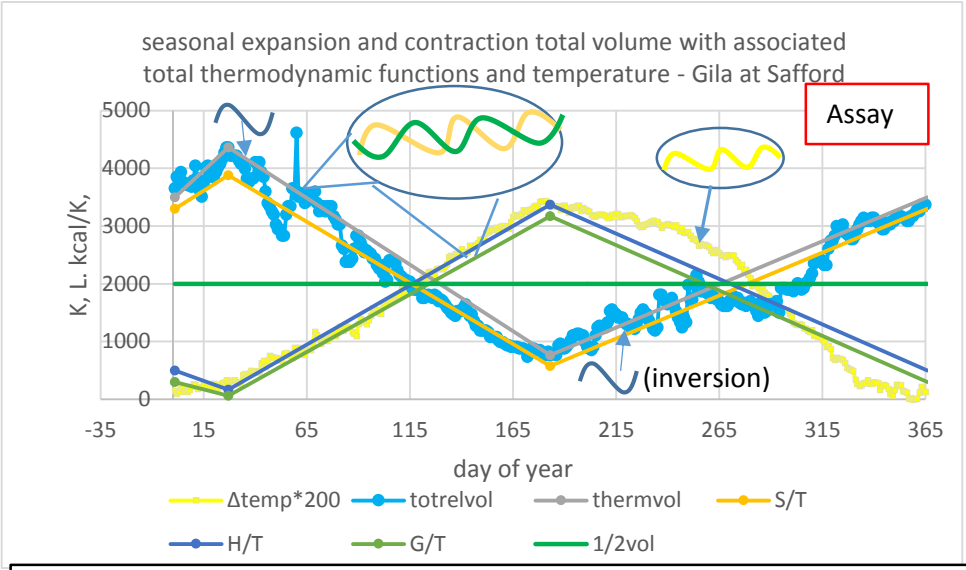
major ion inversion



Inversion & ion pair dissociation/formation

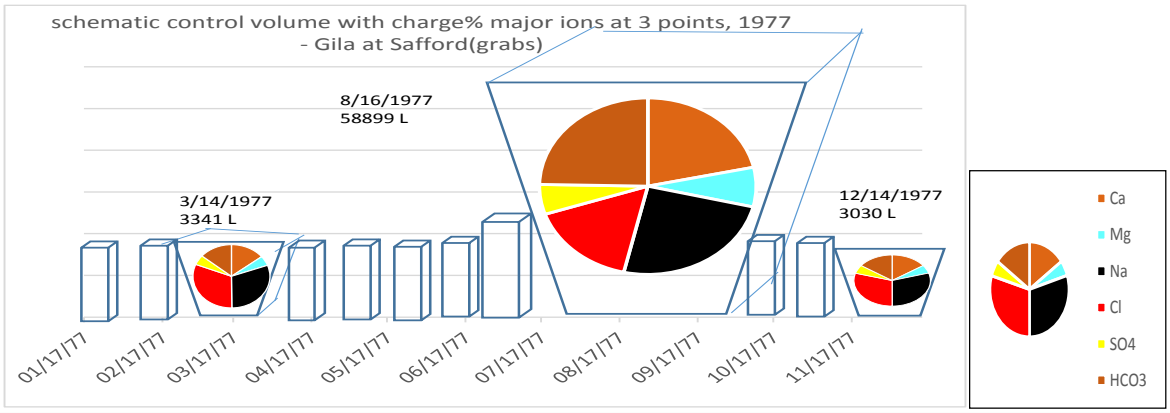


solution (water) inversion status energy end states

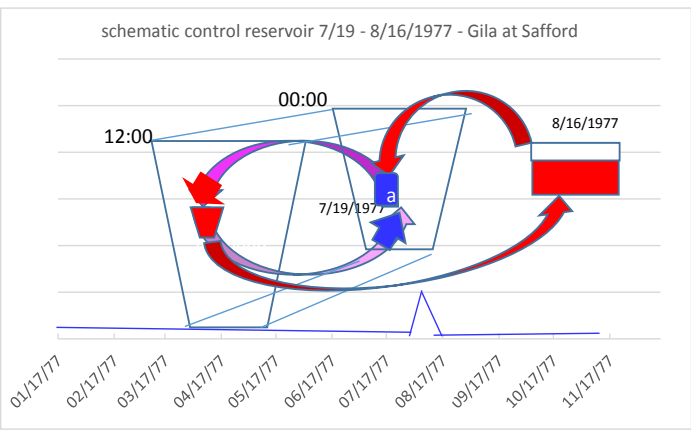


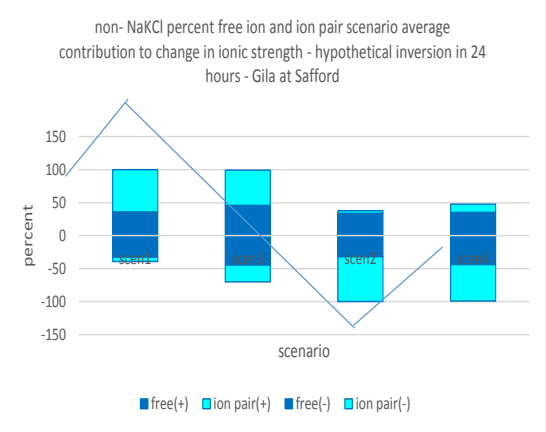
energy implications seasonal expansion/contraction normal volume

Patterns and Relations in Gila River Chemistry and Thermodynamic Process: Database Description and Evolution (schematics)

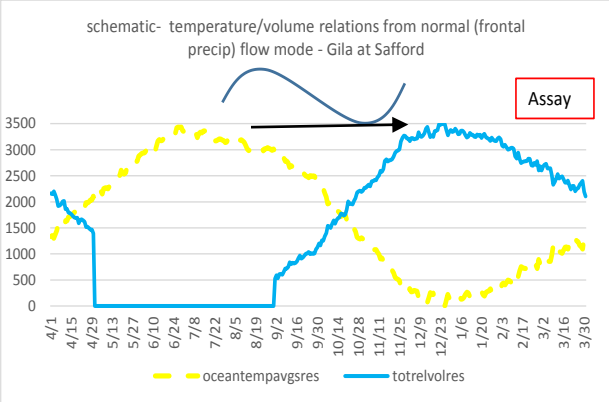


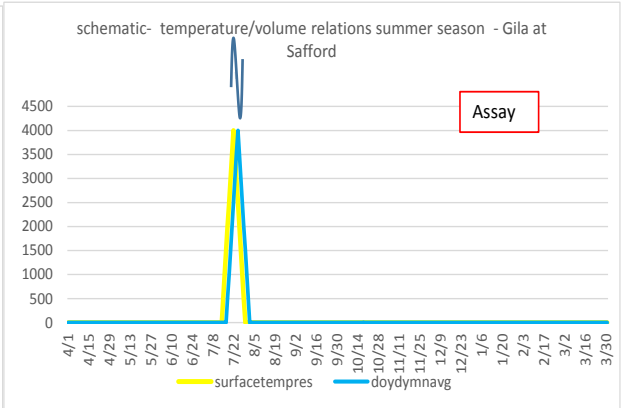
'control volume' view of Figure 1: a series of one second snapshots of a sliver of material, average length roughly 0.03% of the Arizona portion of the river, taken at intervals of 2.5 million seconds (1 month) apart





A 'control reservoir' designed to find ion pair dissociation/formation role in change in ionic strength





Two climatological regimes, two different 'lag' times/correlations, two different entropy situations