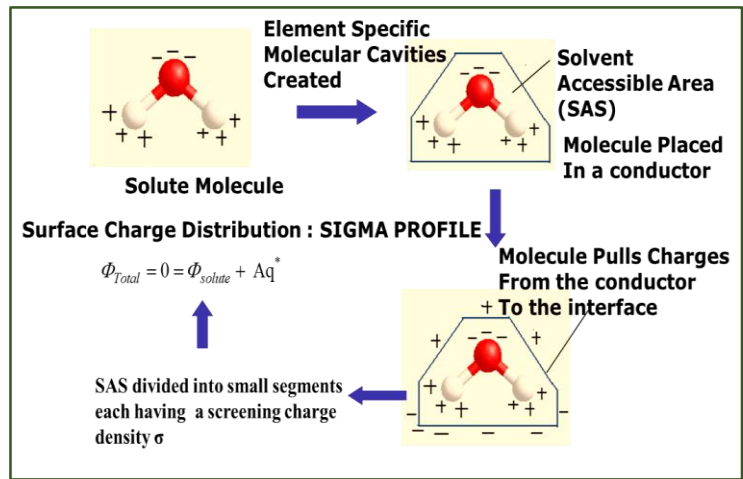
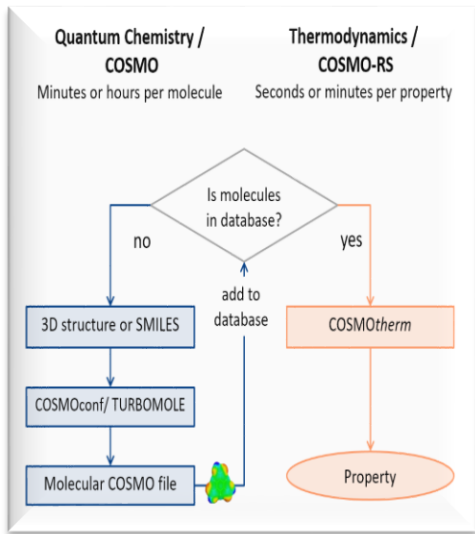
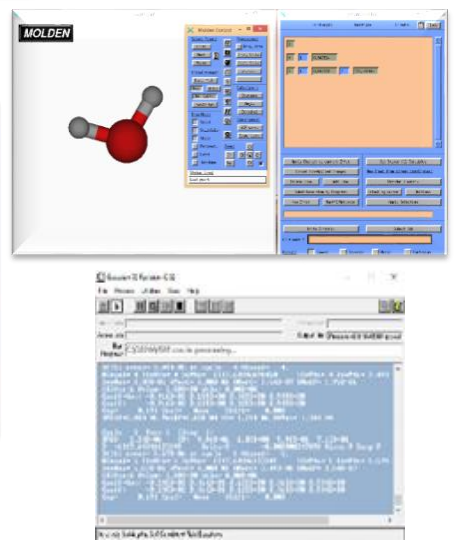
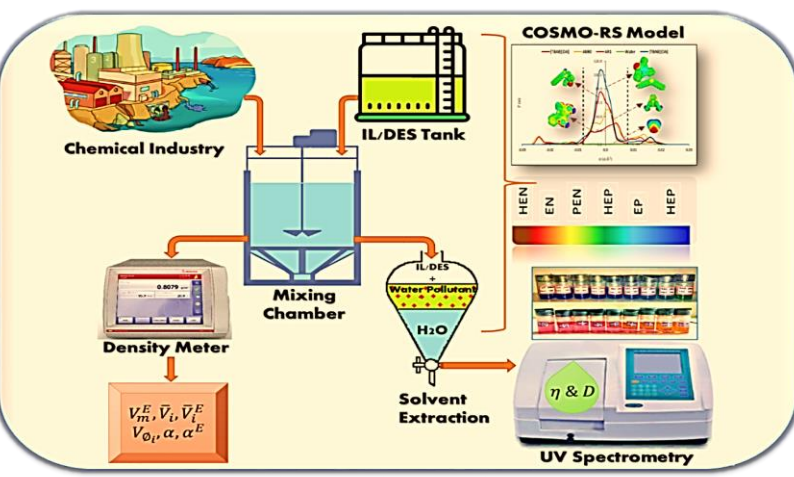


## (Emerging Pollutants and Managing Wastewater and Waste)



### COSMO-RS Model



#### COSMO-RS Model

To evaluate the molecular behavior of water pollutants using Ionic Liquids (ILs) and Deep Eutectic Solvents (DESs) using  $\sigma$  – Profile and  $\sigma$  – Potential

#### Solution Thermodynamics Properties

To study the pure compound and their binary mixture [ILs/DESs (1) + water pollutants (2)] behavior at different concentration and different temperatures from 293.15 K – 343.15 K.

#### Solvent Extraction Process

To determine the quality of water matrices in terms of distribution coefficient (D) and extraction efficiency (% $\eta$ )

#### Feasibility Studies

To study the thermodynamic feasibility of green solvent-based extraction process at different temperatures in terms of change in Gibbs free energy, change in enthalpy, change in entropy

