

High-Precision Drop calorimetry

Experimental Physical Chemistry

DEMO.04

Liquids and Solids

Differential calorimetry

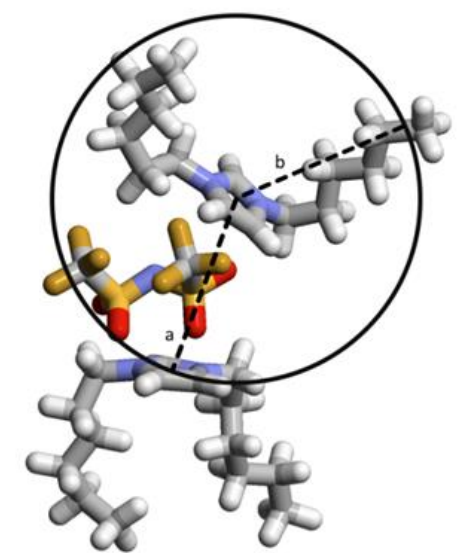
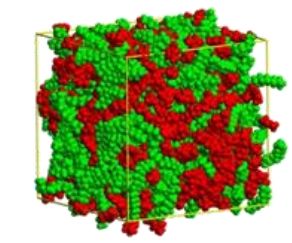
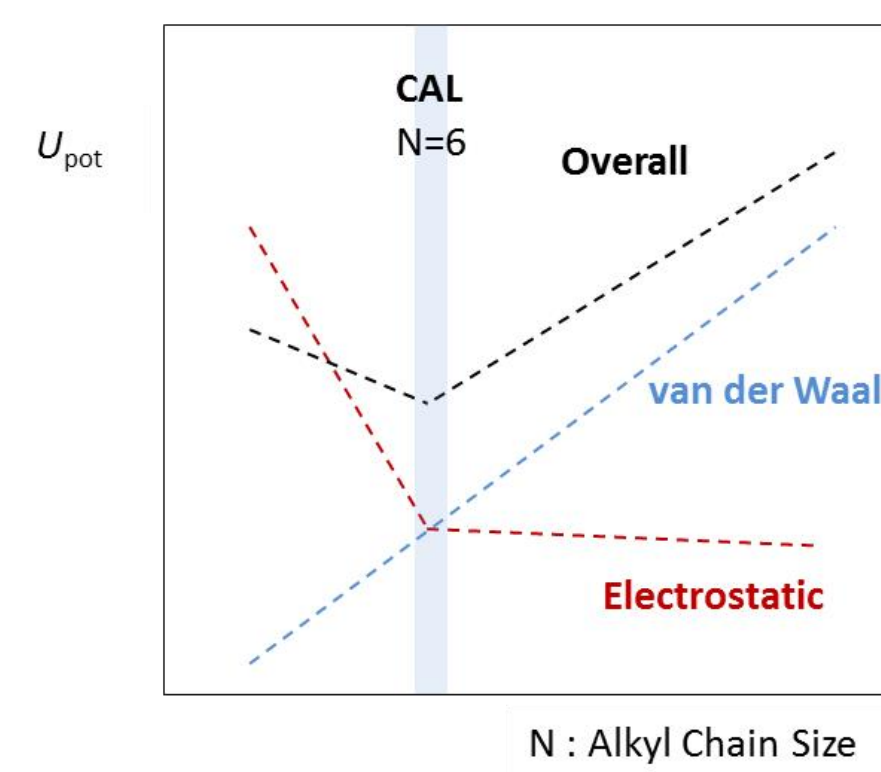
Heat capacities

Drop Method

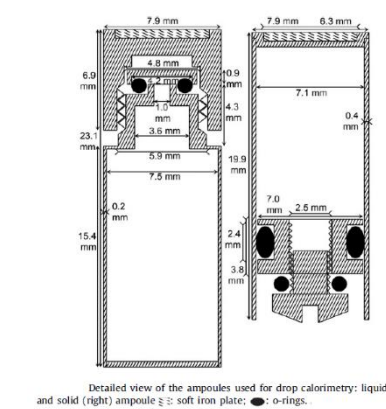
High Precision Microcalorimetry

Nanostructuration

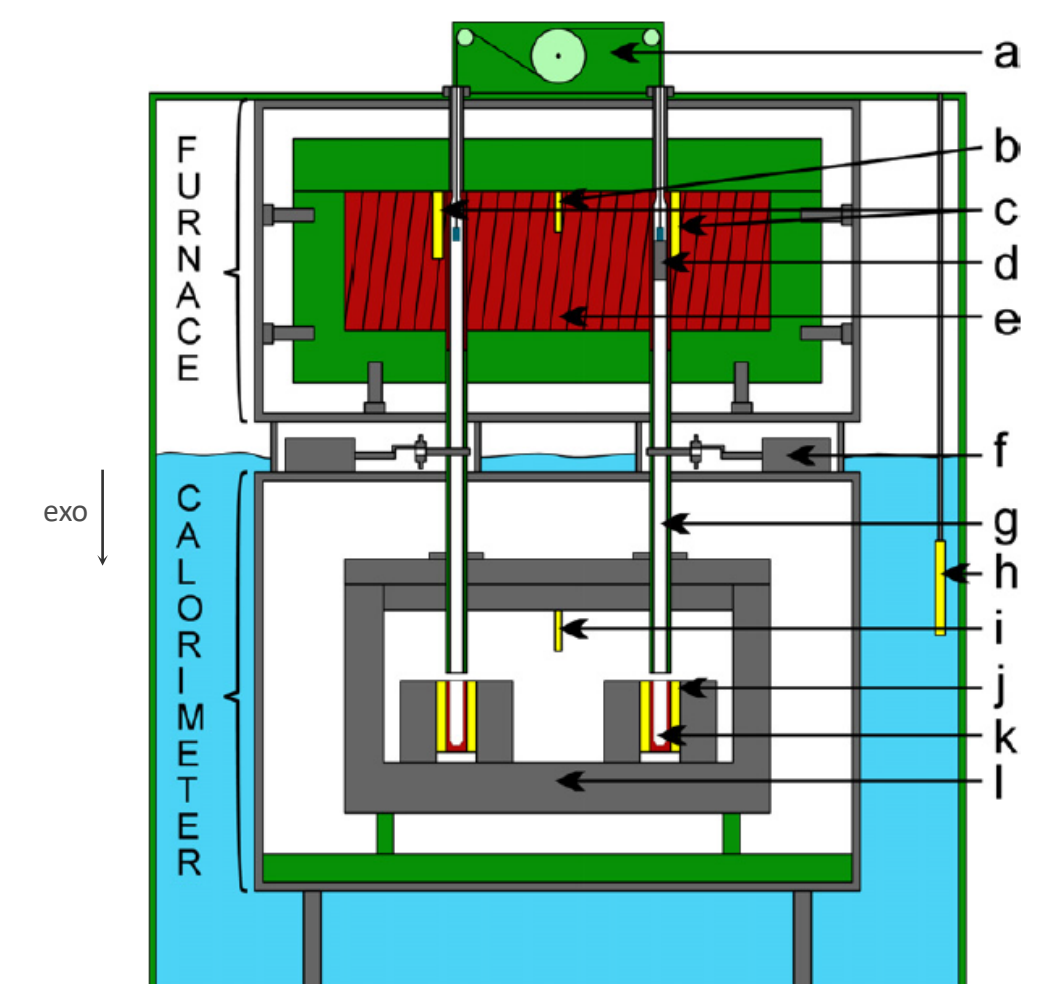
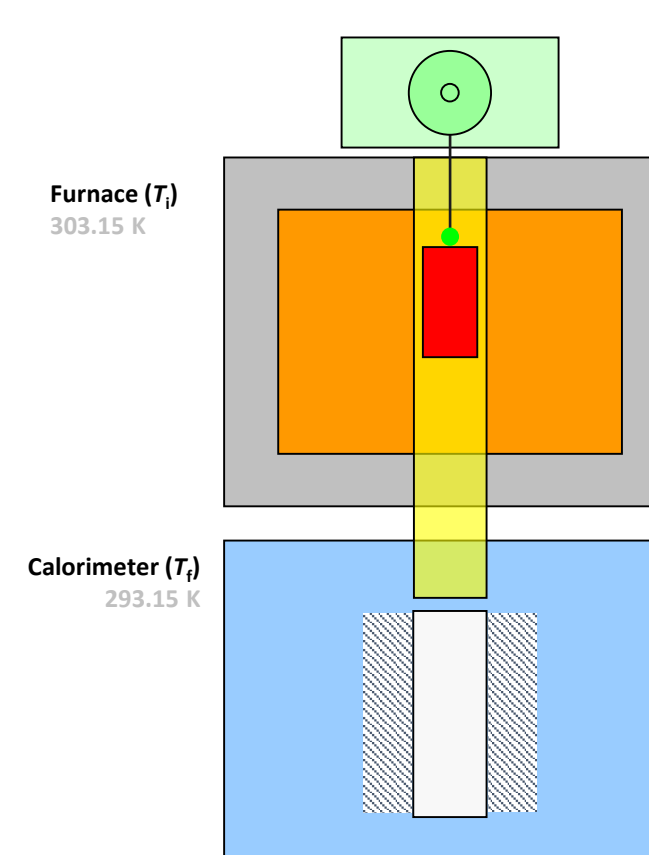
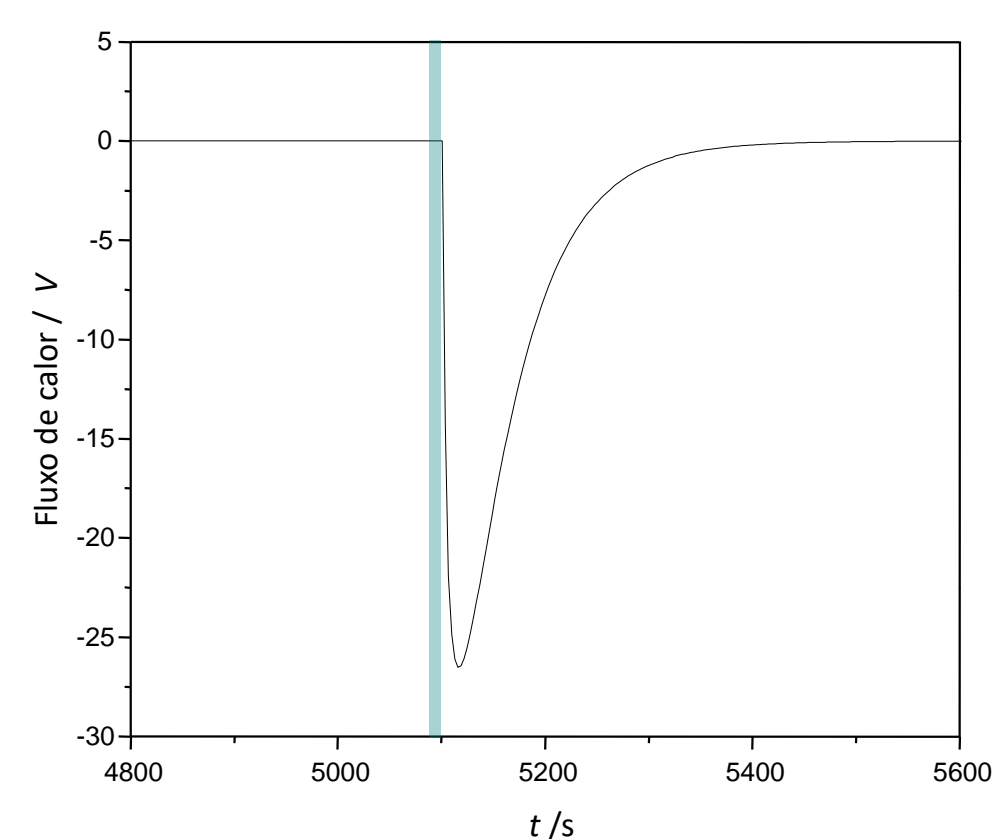
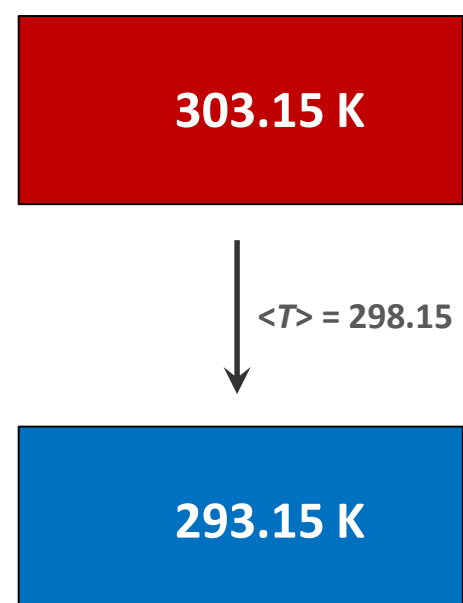
TREND SHIFT CAL ... Critical alkyl length



Methodologies & Application



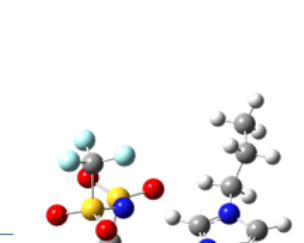
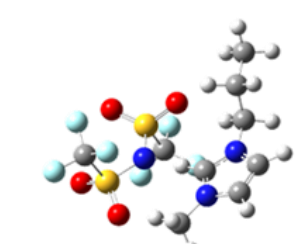
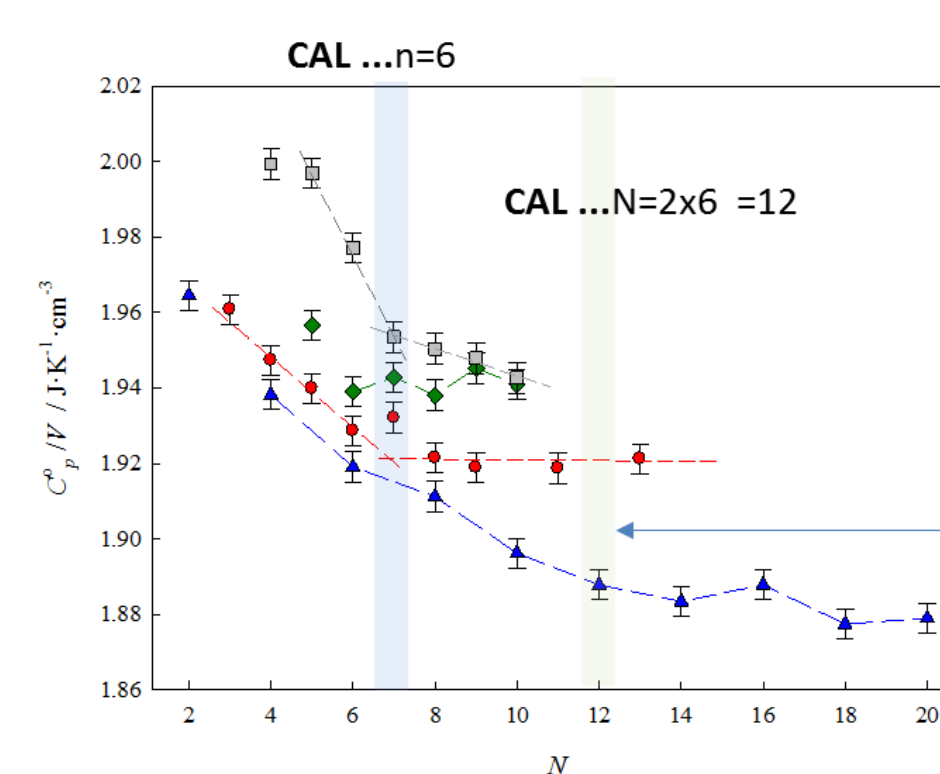
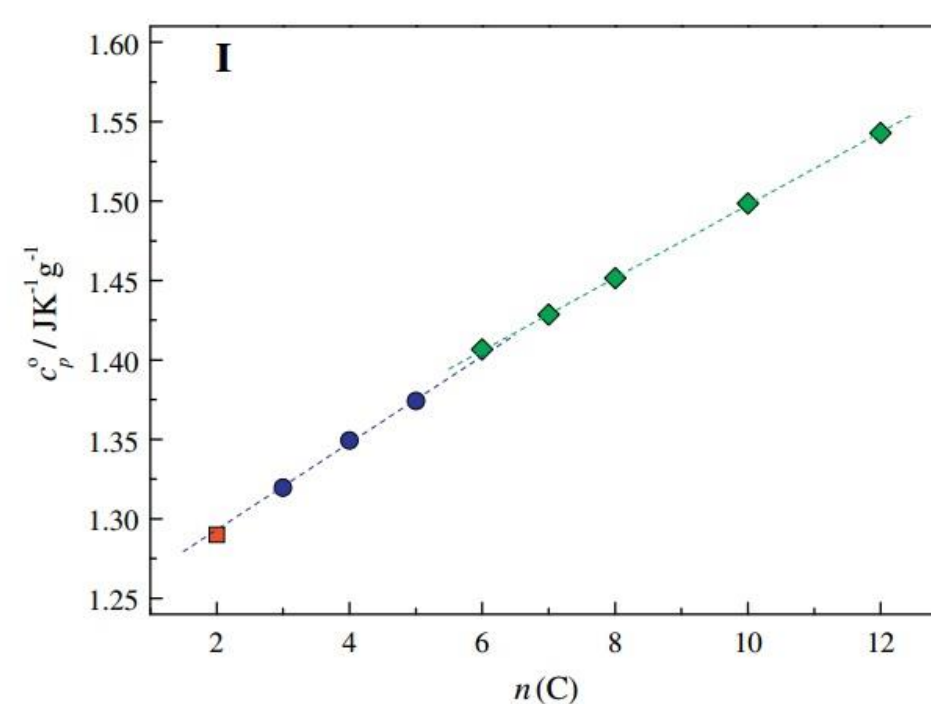
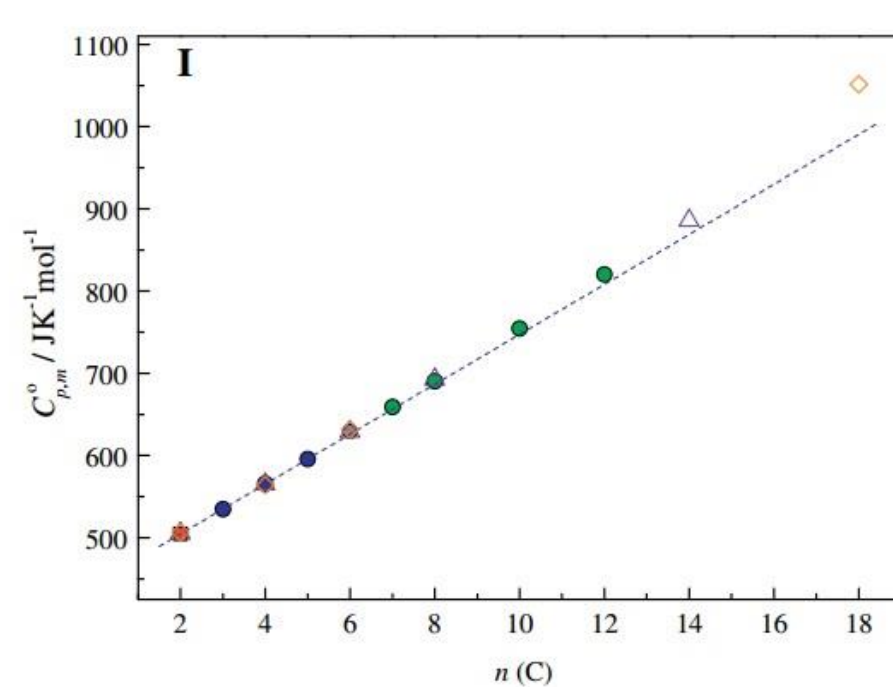
"Drop methodology"



Drop calorimeter apparatus. Materials: (■): water; (□): PVC; (▨): metal; (■): copper; (■): measuring elements; a: automatic lift; b: thermistor for temperature control; c: Pt100, temperature sensors; d: magnet holding ampoule; e: copper block (T_f) with manganin heater wound; f: electromechanical shutter; g: tube for the ampoule (top copper, bottom plastic); h: thermistor; i: Pt100, temperature sensor located in wall of block; j: Peltier plates; k: ampoule receiver; l: aluminum calorimeter block (T_c).

Results & Achievements

Heat capacities at 298.15 K of the extended [C_nC₁im][Ntf₂] ionic liquid series



Alkyl Side Chain Length effect

Symmetry