Interfacial Properties of Simple Fluids

Mariana Barcenas[1], Yuri Reyes[2], Gerardo Odriozola[3], Pedro Orea[4]

[1]*División de Ingeniería Química y Bioquímica, Tecnológico de Estudios Superiores de Ecatepec, Av. Tecnológico S/N, 55210 Edo. de Méx., México.*

[2]*Departamento de Recursos de la Tierra, Universidad Autónoma Metropolitana-Lerma, Av. Hidalgo 46, 52006 Edo. de Méx., México.*

[3]*División de Ciencias Básicas e Ingeniería, Universidad Autónoma Metropolitana-Azcapotzalco, C.D. de México 02200, México.*

[4]Dirección de Investigación en Transformación de Hidrocarburos, *Instituto Mexicano del Petróleo, Eje Central Lázaro Cárdenas 152, C.D. de México 07730, México.*

Nowadays, molecular simulation is a fundamental tool to calculate the thermodynamics properties (coexistence curve, surface tension, critical points, among others) of model systems. Calculating the thermodynamic properties of molecular systems from model potentials is one of the main aims of statistical mechanics. For that reason, model potentials (square well, Yukawa, Mie, Sutherland, and triangle well potentials) have been widely used to represent real systems. This has been done through different simulation techniques as well as theoretical approaches. Since early works, pairwise additive potentials have been helpful to understand the experimental behavior and to reproduce thermodynamic properties of real systems. Therefore, in this talk we will give a small review of the thermodynamics properties of model systems that have been made recently by our group.