Optimizing the Fractionation of Gas

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Abstract

In recent years, new energy has managed to work their way off of oil and natural gas; it is liquefied petroleum gas (LPG). With their advantages of clean, transportable energy, LPG managed to penetrate sectors as diverse as residential, petrochemicals, agriculture, industry and automotive (LPG) [1], Purvin and Gertz estimates that the global market will grow about 3.1% per year [2]. LPG occupies a place of great importance in the marketing strategy of hydrocarbons Sonatrach. However the evolution experienced by the energy sector, now offers better marketing opportunities, on the other hand, the production of LPG must meet the marketing standards, and that is why we must optimize the operating parameters in the fractionation units thereof. Nowadays, the simulation and optimization of chemical processes require precise knowledge of the equilibrium properties of the blends over wide ranges of temperatures, pressures and compositions, these phase equilibria can be measured by various methods. The calculations balanced liquid - vapor are very often produced using state of cubic equations. When these equations of state are applied to mixtures, molecular interactions are taken into account by a binary interaction coefficient, called kij, the choice is very tricky, even for simple mixtures [3], these methods represent models Thermodynamic who experienced progressive development since their appearance.
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