New Technologies to Enhance Yield of Crude Fractionation

The objective of crude fractionation is to separate the incoming oil to a refinery into valuable products, namely, gas oils, diesel, kerosene, jet fuel, naphtha, gasoline and LPG. In this article, we review a recent patent where five technologies are presented to increase the ability of separating the aforementioned valuable products using the same energy expenditure, if not less than the current conventional distillation processes. The results of computer simulation of the five designs are used to evaluate each design's performance.