



Catalytic Visbreaking

A Low Cost Residue Upgrading Technology

Description:

The conversion in a Visbreaker Unit (VBU) is defined as the combined yields of gas, LPG, naphtha and gas oil. The unit conversion increases with increasing coil outlet temperature (COT) of the feed heater due to enhanced thermal cracking. However, increasing COT also results in increased coke formation in heater coils and reduced stability of fuel oil produced. Therefore, the conversion is generally limited to about 9-12wt%.

HPCL-R&D has developed a novel catalytic approach to increasing the conversion in VBU while maintaining the stability of the visbroken fuel oil.

Advantages:

It would be possible to increase the severity of VBU by $\sim 10^{\circ}\text{C}$ which can increase conversion by $\sim 3\text{wt.}\%$ with same visbroken fuel oil P-value of ~ 1.15 .

Applications:

VBU units of Petroleum or Petrochemical Refineries