

Abstract

Disclosed is a method and an apparatus for the desulfurization and separation of a catalytic cracking light product, the method comprising the steps of: 1) contacting a catalytic cracking light product with a desulfurization adsorbent in an adsorption desulfurization reaction unit in the presence of hydrogen for desulfurization, and optionally carrying out gas-liquid separation on the resulting desulfurization product, to obtain a desulfurized rich gas and a desulfurized crude gasoline, wherein the catalytic cracking light product is an overhead oil-gas fraction from a catalytic cracking fractionator, or a rich gas and a crude gasoline from a catalytic cracking fractionator; and 2) separately sending the desulfurized rich gas and the desulfurized crude gasoline obtained in the step 1) to a catalytic cracking absorption stabilization system for separation, to obtain a desulfurized dry gas, a desulfurized liquefied gas and a desulfurized stabilized gasoline. The method and the apparatus are suitable for use in the treatment of a catalytic cracking light product obtained from a catalytic cracking fractionator, and a high yield of refined gasoline and a low octane value loss can be obtained.

Figure 1A