

(2003/1/18 2002/9/29)

Submerged Combustion distillation

**Purification of Mishraq Raw Sulphur from Bituminous Impurities
by Thermal Treatment. A Comparison between Two Industrial
Processing Approaches**

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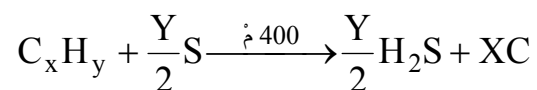
ABSTRACT

This study gives a comparison between two different industrial units that utilized thermal treatment principles to purify raw sulphur from accompanied bituminous impurities. Different designs and processing approaches were adopted in each unit.

The first unit was built by the Japanese Nissan chemical industries company Ltd. Conventional indirect heating techniques was used to heat sulphur to the required levels. The second unit was built by an American company called Freeport. Direct heating through a new technique called submerged combustion distillation was used to heat sulphur to the desired temperature. Drawbacks and some negative features of submerged combustion distillation technique compared with direct heating technique are presented. Some of these drawbacks are represented by the new complicated techniques implemented in this treatment, which resulted in increasing production cost through the production of larger quantities of gases, and the complication of their nature through increasing percentages of sour components.

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(1981) 400

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(1982)

(1981)

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(160)

Submerged Combustion Distillation

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.1986 1982 1366

.1981

1352

1366

.1982

.2001

Ali, L.H. and Al-Ghanam, K.A., 1979. Fuel, 58, pp.803.

Kornerup, A. and Wansher, J.H., 1967. Methuen Hand book of colour. 2 nd Ed., Methuen and Company ltd, London, England.