Abstract
Traditional sulphur recovery units can recover more than 99.9% of the sulphur in the feed gas as elemental sulphur. This is achieved using a Claus process, recovering up to 97% of the sulphur and a tail gas treating unit, which converts remaining sulphur in the tail gas to hydrogen sulphide and recycles this to the front of the Claus Unit via an amine unit.

This paper explores the use of Wet Sulphuric Acid technology as a SRU Tail Gas Treating Technology. In this new scheme, Claus tail gas is converted to sulphuric acid.

The process schemes for a typical refinery SRU and a Gas Processing SRU are described and the economics of the various schemes have been derived. The SRU/WSA process scheme has lower capital and operating cost compared with the conventional schemes, and could be a good economical and technical option if there is a local demand for sulphuric acid.