

## Appendix D

### INSTRUMENTAL METHODS FOR CRACKING CATALYST

#### 1 Microactivity Test (by WFS-1D Microactivity Testing Unit)

There are two parts in the test system: test unit (MAT unit) and gas chromatography set.

##### 1.1 MAT Unit (Angkasuwan, 1999)

In this work we used MAT unit model WFS-1D produced by Research Institute of Petroleum Processing (RIPP), SINOPEC. WFS-1D is designed according to the standard method developed by RIPP and mainly used to test the activity index of cracking catalyst. The standard test method of cracking catalyst microactivity index in China is RIPP 92-90, the conditions are:

Standard feed gas oil: Straight-run light oil, boiling range of 235 - 337°C

Reaction temperature :  $460 \pm 1^\circ\text{C}$

Feed oil weight :  $1.56 \pm 0.01$  g

Feeding time : 70 sec

Post stripping time : 10 min

Stripping nitrogen flow-rate : 20-30 ml/min