

Radiometric Methods for Detecting the Coking in Packing in a Lab-Scale Distillation Column

Khadija El Korchi^{1*}, Rachad Alami² and Abdelaziz Chaouch¹

¹Laboratory of Biotechnology Environment and Quality, Department of Chemistry, Faculty of Science, University Ibn Tofail, Morocco

²Division of Industrial Applications, Maâmora Nuclear Research Center of Kenitra, Morocco

The refining industry plays a very important role in the national economy. This sector is confronted with numerous technical constraints that directly and indirectly influence the reliability of equipment, the quality of production and consequently its turnover. Among these problems are pressure drops, fouling, high-temperature corrosion by sulphur compounds and coke deposition. Our work aims to study the phenomenon of coke deposition in the distillation columns by two diagnostic techniques namely gamma-ray scanning and radiotracers. According to the results, it was concluded that the radiotracer method may be a good approach for detecting the presence of coke in packing in distillation columns.

Keywords: Distillation columns, coking, gamma scanning, radiotracer.