

Exercise 6 "Catalytic cracking of hydrocarbons"

Requirements for students

1. Catalysis, definition of catalysts. Catalysts classification. Catalyst activity, selectivity and stability.
2. Heterogeneous and homogeneous catalysts –characteristic properties, similarity and differences.
3. Catalytic processes classification. Example of catalytic reaction and typical catalysts.
4. Catalytic cracking. Typical raw materials and products. Reaction mechanism, employed catalysts. Brønsted and Lewis acidic centers.
5. glc basic principles.
6. Knowledge on the exercise aim, procedure run and devices described in this manual.

Literature:

Exercise manual nr 6 accessible in student laboratory and on the web page:
<http://www.chem.uw.edu.pl/people/Myslinski/nowy/lab.html>

Supplemental literature:

J.Hagen "Industrial catalysis. A practical approach."Wiley-VCH Verlag GmbH, Weinheim, Germany 2006.

R.A.Van Santen, M.Neurock "Molecular heterogeneous catalysis". Wiley-VCH Verlag GmbH, Weinheim, Germany 2006. D.W