

Experiment 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. Brönsted and Lewis acidic centers.
5. glc basic principles.
6. Knowledge of the purpose of the experiment, its course and the analytical methods used in it.
7. Knowledge of the hazards present in the experiment.

Literature:

Exercise manual nr 6 accessible in student laboratory and on the Kampus platform.

Link:

<https://kampus-student2.ckc.uw.edu.pl/course/view.php?id=15191>.

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.