

- limitation of natural resources and a decline in natural and resource potential;
- internal dynamic balance of ecological systems;
- decrease in energy efficiency of subsoil use: optimality or rationality in geocology.

**Ecology task as a science** is to study human activity in the environment, as well as to study the processes of restoring the environment disturbed by man. Ecology is also a scientific basis for the rational use of natural resources, including minerals.

**Electrical Desalting Plants (EDP)** are plants that are necessary to remove salt from crude oil in order to avoid corrosion of oil refining technology, increase its service life, reduce the cost of maintenance and repair of chemical reactors. EDP is the first installation through which the oil entering the plant must pass.

**Effective density** is the density of solid phase catalysts, determined on the basis of the volume of liquid that is displaced by the sample when it is placed in this liquid. The effective density values can differ significantly for different liquids due to the fact that a different degree of penetration of liquids into the pores of the catalyst is observed.

**The effective pore size** is the diameter of the maximum circumference, which can be inscribed in a flat pore cross section. In this case, the plane section of the pore can have an arbitrary geometric shape.

**Efficiency of the catalyst** is the number of molecules of the formed products referred to one molecule of the active centers of the catalyst. It is the cumulative characteristic of catalytic properties considering activity, selectivity and period of operation of the catalyst without loss of catalytic activity.

**Electrochemistry** is a branch of physical chemistry that considers systems containing ions (solutions or melts of electrolytes) and processes occurring at the boundary of two phases with the participation of charged particles. It is divided into theoretical and applied. Thanks to the use of electrochemical methods, it is associated with other branches of physical chemistry, as well as analytical chemistry and other sciences.

**Electrode processes** are processes associated with the transfer of charges across the boundary between the electrode and the solution. The cathodic processes are associated with the reduction of molecules or ions of the reacting substance, the anodic processes are associated with the oxidation of the reacting substance and with the dissolution of the electrode metal.

**Electrophilic catalysis** is a catalytic reaction in which the catalyst is a Lewis acid. Example: Friedel-Crafts alkylation in the presence of aluminum chloride  $\text{AlCl}_3$ .

**Emergency emission** is unintentional release of pollutants into the environment (atmosphere, water, soil) as a result of an accident on technical systems.

**Emergency environment** is an accident in which pollutants enter the environment in an amount that poses a threat to the environment, people and property.

**Emergency rescue works** are actions to save people, material and cultural values, protect the natural environment in the emergency zone, localize emergencies and suppress or minimize the impact of specific hazards. They require special training, equipment and devices.

**Emissions** are gas-dust substances to be discharged (released into the atmosphere) beyond production limits, including hazardous and / or valuable components that are trapped by the process gases and are disposed of in accordance with the requirements of national legislation and / or regulations.

**EMS-1** is a station, consisting of a KAMAZ automobile (a variant was developed on the basis of the Ural motor vehicle), in the back of which a multi-purpose universal modular laboratory is installed, equipped with instruments and equipment for sampling and analysis of water, soil air, meteorological parameters.

The EMS-1 instrument complex consists of separate functional blocks, which can be combined into the following groups:

- a set of instruments and equipment for sampling and analysis of air, water, soil samples;
- a meteorological station (measurement of temperature, air humidity, atmospheric pressure, wind speed and direction);