dioxide, sulphur dioxide or any other mixture of particulates and air that are airborne. In many countries, emissions are regulated by countrywide emission standards. These can be either related to specific industries or to general emissions regulations.

**Air indoors** is an atmospheric air, warmed (cooled) and partially filtered through wall coverings and glazed window openings. It is close in composition to the air of populated areas, but it has a higher content of carbon dioxide, lower oxygen and, usually, higher radioactivity, especially in houses of certain types of concrete and silica brick and in the presence of granites in the foundations. To maintain the normal air composition in such houses, the speed of its movement is about 0.1 m / s. The best material for the walls is a tree. Heating systems and kitchens, especially with gas stoves, have an important influence on the air quality of the rooms.

**Air pollutant** is any substance in air that in high enough concentration could harm man, animals, vegetation, or material. Pollutants may include almost any natural or artificial composition of airborne matter capable of being airborne. They may be in the form of solid particles, liquid droplets, gases, or in combination thereof. Generally, they may be: 1) emitted directly from identifiable sources, 2) produced in the air by interaction between two or more primary pollutants, or by reaction with normal atmospheric constituents, with or without photo activation.

**Air pollution** is the discharge of toxic gases and particulate matter introduced into the atmosphere, principally as a result of human activity.

Air quality index is a general air pollution index freely available to the public in major West European cities. This daily index, rated from 1 (excellent) to 10 (extremely polluted), takes into account ozone, sulphur dioxide and nitrogen dioxide levels, all of which are toxic for human health and are regulated at the European level. The concentrations close to the warning limit correspond to an index of 4 to 5. However, this daily index, which does give a general idea of the air quality, does not reveal which substance is causing the pollution. A traffic index characterizes the air quality in a dense traffic environment, taking into account the pollutants typical for traffic, nitrogen oxides and carbon monoxide. Any index greater than 6 corresponds to an abnormal situation, index 7 to strong air pollution caused by traffic, and the indices 8, 9 and 10 to increasingly heavy pollution up to an exceptionally high level.

**Air sweetening** is a process in which air or oxygen is used to oxidize lead mercaptides to disulfides instead of using elemental sulfur.

**Alicyclic hydrocarbon** is a compound containing carbon and hydrogen only, which has a cyclic structure (e.g., cyclohexane); also collectively called naphthenes.

**Aliphatic hydrocarbon** is a compound containing carbon and hydrogen only, which has an open-chain structure (e.g., as ethane, butane, octane, butene) or a cyclic structure (e.g., cyclohexane).

**Alkanes** (paraffins, saturated hydrocarbons) are a homologous series of non-cyclic hydrocarbons that do not contain double or triple bonds. The simplest alkane is methane, the subsequent terms of the series (propane, butane, pentane, etc.) are obtained by adding to one ethylene one carbon atom - a methyl group. The general formula for the series is  $C_nH_{2n+2}$ .

**Alkenes** (unsaturated hydrocarbons, olefins) is a homologous series of non-cyclic hydrocarbons containing double bonds. The simplest member of the series contains two carbon atoms - ethylene. Next followed by propylene, butylenes, etc. The general formula for the series is  $C_nH_{2n}$ .

**Alternative fuels** are fuel types (compressed and liquefied gas, biogas, generator gas, biomass processing products, water-coal fuel, etc.), the use of which reduces or replaces the consumption of energy resources of more expensive and scarce species.

**Alumina** ( $A1_2O_3$ ) is oxide of aluminium and it is used in separation methods as an adsorbent and in refining as a catalyst.

**Aniline point** is the temperature, usually expressed in °F, above which equal volumes of a petroleum product are completely miscible; a qualitative indication of the relative proportions of