

Sorption (from Lat. o A sorbate or sorptive is an absorbed substance Sorption is the process in which one substance takes up or holds another (adsorption or absorption) A sorbate or sorptive is the absorbed substance A sorbent is any agent that absorbs or adsorbs (absorber). Liquid/liquid: in this case molecules of surface active compounds, that were initially dissolved in one or both liquids, are adsorbed on the frontier of two liquids, which are insoluble in each other (water–benzine) Solid/gas: in this case the gas molecules are adsorbed on the surface of a solid substance. This adsorption involves the formation of chemical linkages adsorbed molecules and the surface of adsorbent Molar heat is high. In other words, the phenomenon of attracting and retaining the molecules of a substance of a liquid or solid resulting into higher concentration of the molecules on the surface is called adsorption. sorbeo – absorb) is the process of absorption of one substance (gas, liquid or dissolved component) by the surface or volume of another. The surfaces on which adsorption occurs can be divided into two groups: mobile and fixed. Liquid/gas: In this case in frontier between liquid and gas there adsorbed molecules of the so-called surface active compounds, that are dissolved in the liquid. This adsorption first increases with increase in temperature up to a certain extent and decreases regularly. If temperature is increased, the kinetic energy of the gas molecules increases and they leave the surface of the adsorbent. Adsorption on the liquid frontier A compound can adsorbed on the surface of liquid, if the presence of this compound in the surface of liquid decreases the surface free energy. o Process of sorption of one substance by the volume is called absorption. o A sorbent is a substance (absorber) that absorbs another. Absorption is a process in which one substance binds another in its volume. The process of removal of an adsorbed substance from the surface on which it is adsorbed is called desorption. There aren't physical forces between adsorbent and adsorbate. In physical adsorption, the state of adsorbate is same as in the bulk. Adsorption can occur at the surface of both solid and liquid substances. Solid/liquid: In this case the solute molecules from the liquid phase are adsorbed on the surface of a solid substance. Such compound is called Surface active compound (SAC). o Process of sorption of one substance by the surface is called adsorption. As a result of adsorption, there is decrease of surface energy. The substance on the surface of which adsorption takes place is called adsorbent. The substance adsorbed is a adsorbate. There are chemical forces between adsorbent and adsorbate. The equilibrium is reached rapidly. Absorption. Adsorption is a process in which one substance becomes bound to the surface of another. Chemical adsorption. This attractive forces are strong chemical bonds. It is irreversible process. Physical adsorption. This attractive forces are weak chemical bonds. It is reversible .process. Molar heat is low. Most often it is a solid substance