

Difference between adsorption and absorption – FAQ

Although these two terms sound similar, they are actually quite distinct and should not be confused.

- **Adsorption** is the adhesion of a substance to a surface. This process creates a film of the adsorbate on the surface. In HPLC, an example might be the adsorption of water molecules on the surface of a hydrophilic stationary phase.

- **Absorption** is a process in which a substance is dissolved by a liquid or solid, called the *absorbent*. An example of absorption might be when doing an aqueous-organic extraction and a particular **analyte** enters the organic phase. The **analyte** is said to have been absorbed into the organic phase.

*To put this in layman's terms and as a rule of thumb, with adsorption you can regain the molecule with **elution**, with absorption, the molecules are not recoverable. Sunlight is absorbed by skin and water is adsorbed by a paper towel.*

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