

Osmosis

Necessary materials and tools:

Egg, acetic acid, beaker, water.

Description of experiment:

Put an egg into acetic acid and let the acid cover appoximately the half of the egg. After the calcareous shell dissolved, put it carefully into another beaker that contains water.

Result:

Minimum one hour is necessary for the acid to dissolve the calcareous shell. After another hour it is clearly visible that the shell is swollen because of the diffusion of the solvent through the membranous shell. If the egg is left in water for a couple of hours, the shell might even break up.

Explanation:

Osmosis is the diffusion of solvent molecules from a dilute solution to concentrated solution through a semi-permeable membrane.

The diffusion of the solvent (usually water) is through a semipermeable membrane from the more dilute solution to the more concentrated one.