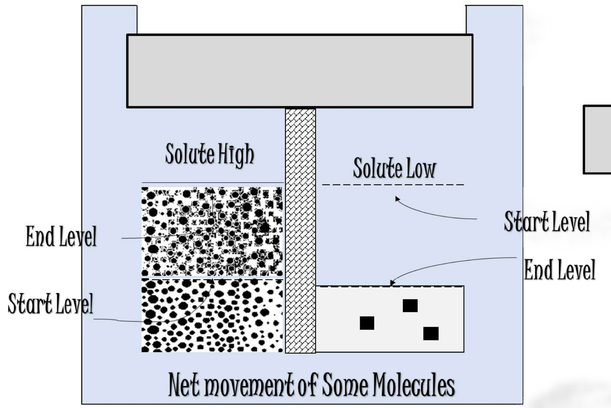
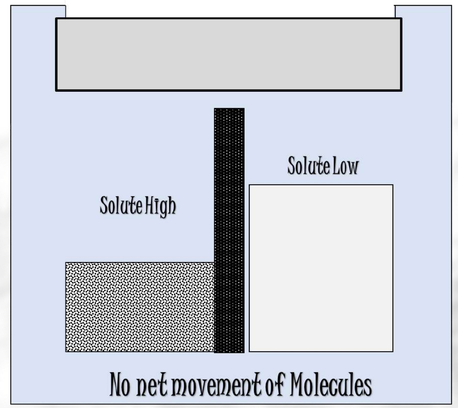


Allows some molecules to cross a membrane while not allowing others

Allows any molecule to freely cross

Does not allow molecules to cross



Why transport? For

Types

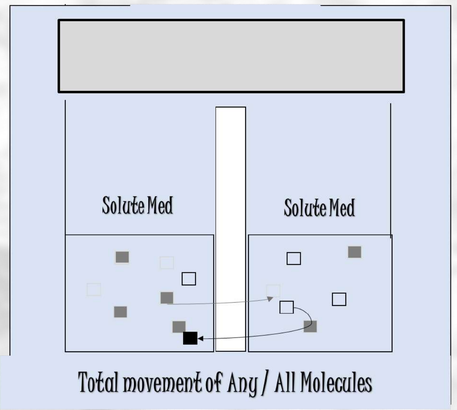
Passive

Down or with the concentration gradient

Diffusion of H20 across a SPM, from high to Low concentration

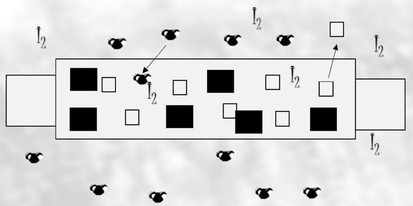
Diffusion of a molecule with the help of a carrier or transport protein

Movement of Any molecule (not H20) across a SPM, from High to Low concentration



Dialysis Tubing Experiment

- I_2 Iodine
- Glucose
- Water
- Starch

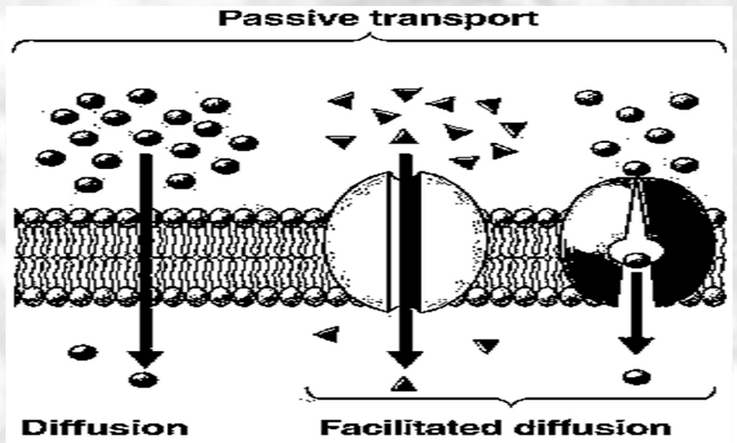


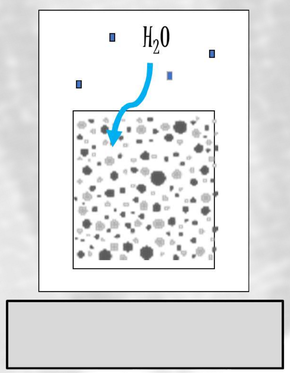
Solutions: SOLUTE SUCKS

active

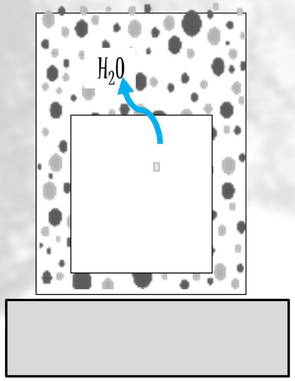
Up or against the concentration gradient

All other forms are ACTIVE:
Requires Energy - ATP

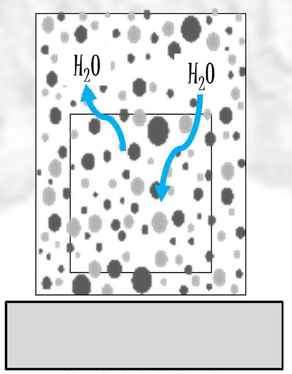




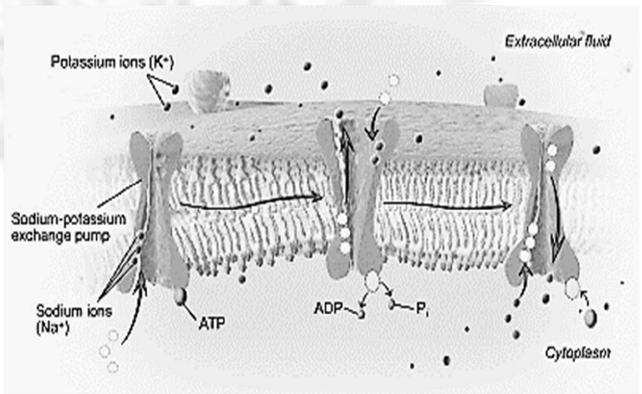
More solute inside
The cell - gets larger

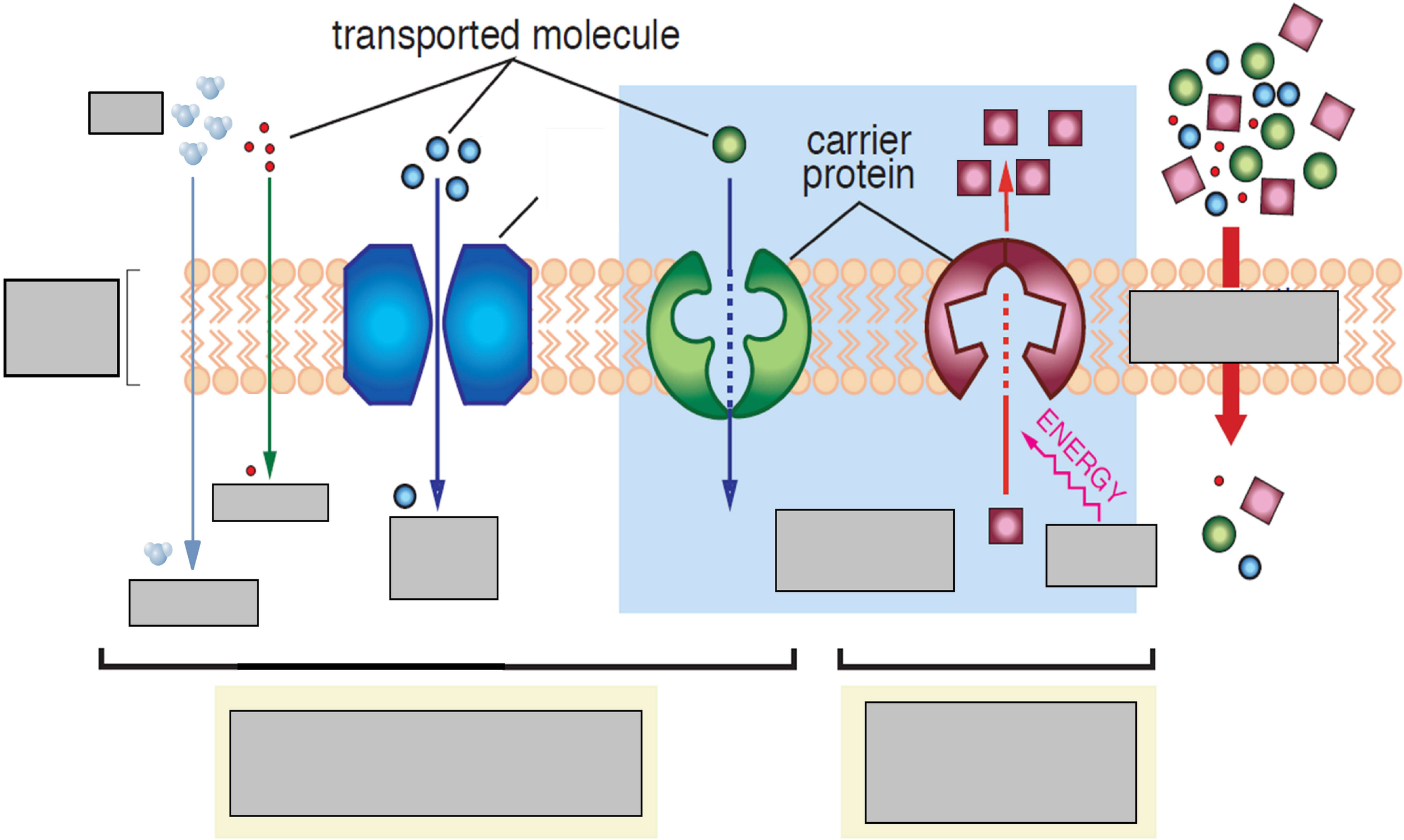


More solute outside
The cell - gets smaller



Equal solute both sides
Of The cell - same




transported molecule
carrier protein
ENERGY

Cell Transport

Semi-Permeable

Permeable

Impermeable

Semi-Permeable

Permeable

Impermeable

Homeostasis

ATP

LIPID BILAYER

Osmosis

Diffusion

Facilitated Diffusion

ATP

H2O

Concentration Gradient

Osmosis

Diffusion

Facilitated Diffusion

High

High

ATP

Low

Low

EX: Endocytosis, Exocytosis, Pinocytosis Phagocytosis Sodium-Potassium Pump

Hypertonic

Hypotonic

Isotonic

PASSIVE TRANSPORT

ACTIVE TRANSPORT

Protein Mediated