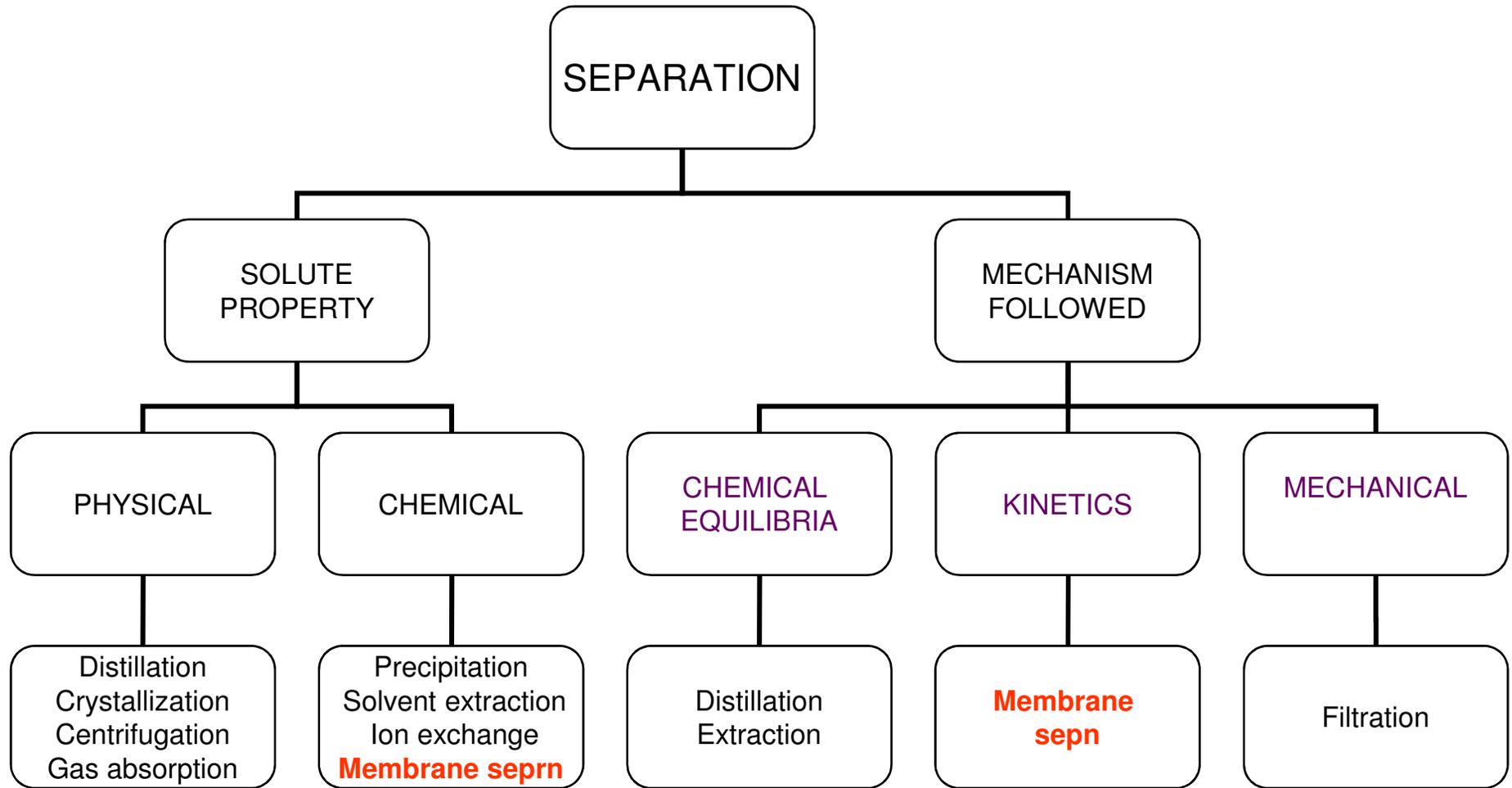


MEMBRANE BASED SEPARATIONS

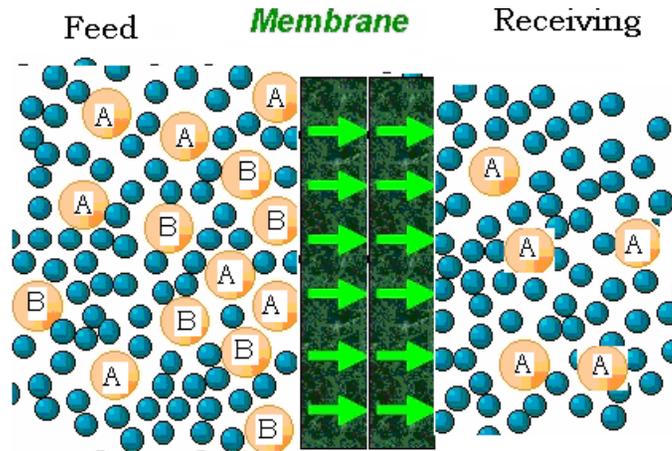


**Membrane
Separation**

Takes advantage of

Difference in chemical property of solute
Difference in the kinetics

FEED
mixture allowed to flow
on one side of
membrane



RECEIVING
Phase which contains the **SELECTIVELY**
transported component



due to

- *Size and charge*
- *Diffusivity*
- *Volatility*
- *Polarity/solubility*

MEMBRANE
Physical barrier that results in
selective transport of certain
components

Separation of Toxic metals/ dyes

Solid
Nafion,
Glass
Nanomaterials

Liquid
Bulk liquid membranes