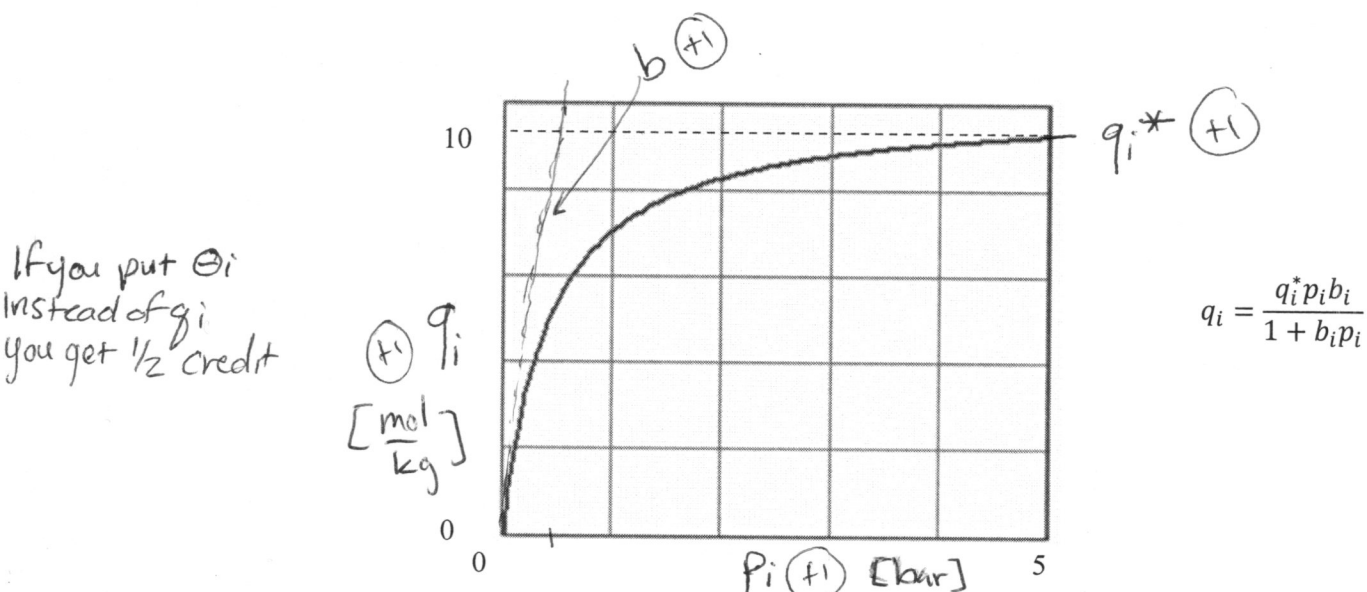


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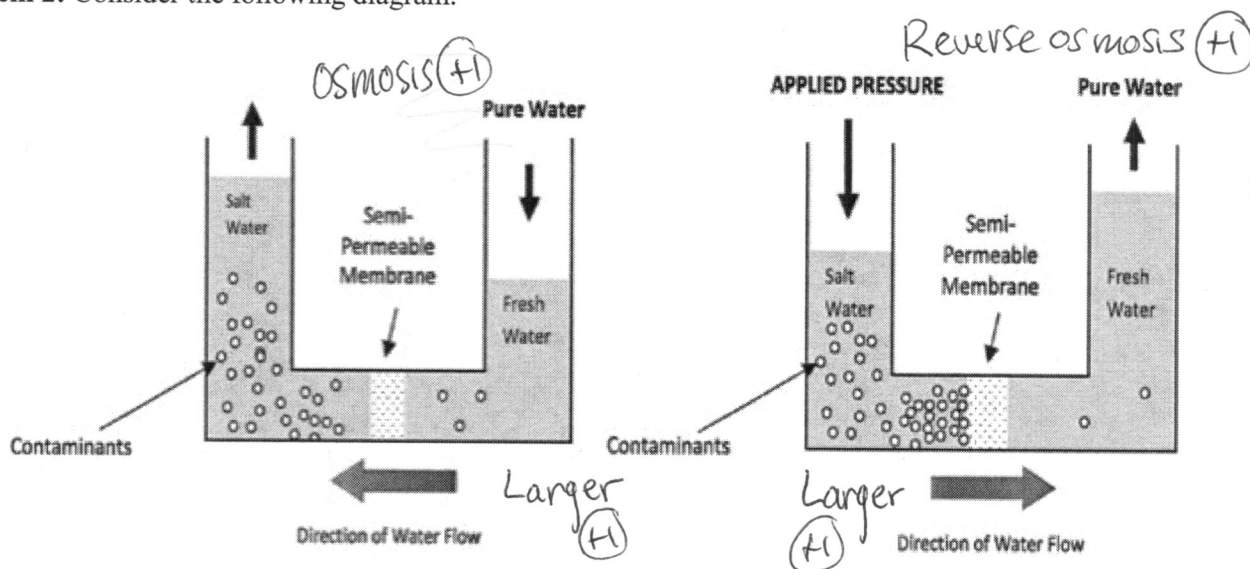
KEY

Problem 1: Label the salient features on the attached Langmuir isotherm: loading at saturation, Langmuir affinity constant, x and y axes (include typical units on the axes).



What is the approximate value of the Langmuir affinity constant (" b ", don't worry about units)? $\frac{10}{0.5} = \sim 20$ (marked with \oplus)

Problem 2: Consider the following diagram:



(a) Which system is "osmosis" and which system is "reverse osmosis"? Label on the diagram.

(b) On each diagram, label the reservoir with the larger water fugacity.

(c) What often-neglected effect is contributing to the fugacity of the left reservoir for the right diagram?

Poynting (marked with \oplus)