

Review Quiz

Which of the following has correct direction for mass transfer in absorption process

- A. Gas phase to liquid phase
- B. Liquid phase to gas phase
- C. Gas phase to gas phase
- D. Liquid phase to liquid phase

Review Quiz

Which of the following has correct direction for mass transfer in stripping process

- A. Gas phase to liquid phase
- B. Liquid phase to gas phase
- C. Gas phase to gas phase
- D. Liquid phase to liquid phase

Review Quiz

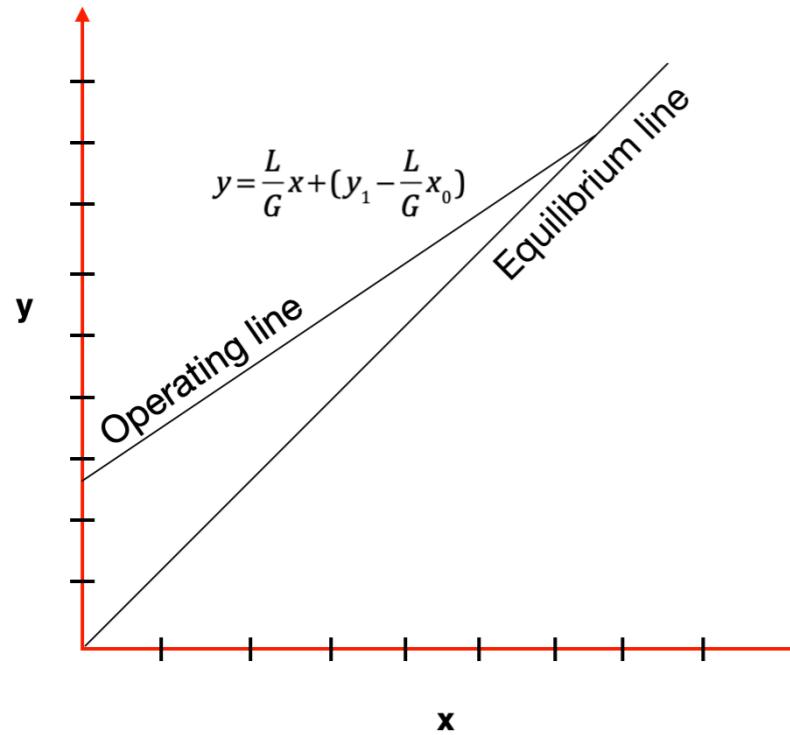
Why does liquid from fizzy drink bottle tend to explode out when a bottle is shaken before opening

- A. Liquid becomes explosive at atmospheric pressure.
- B. There is a chemical reaction of liquid with air.
- C. The dissolved gas reacts with air.
- D. The equilibrium between liquid and gas changes as pressure is changed.

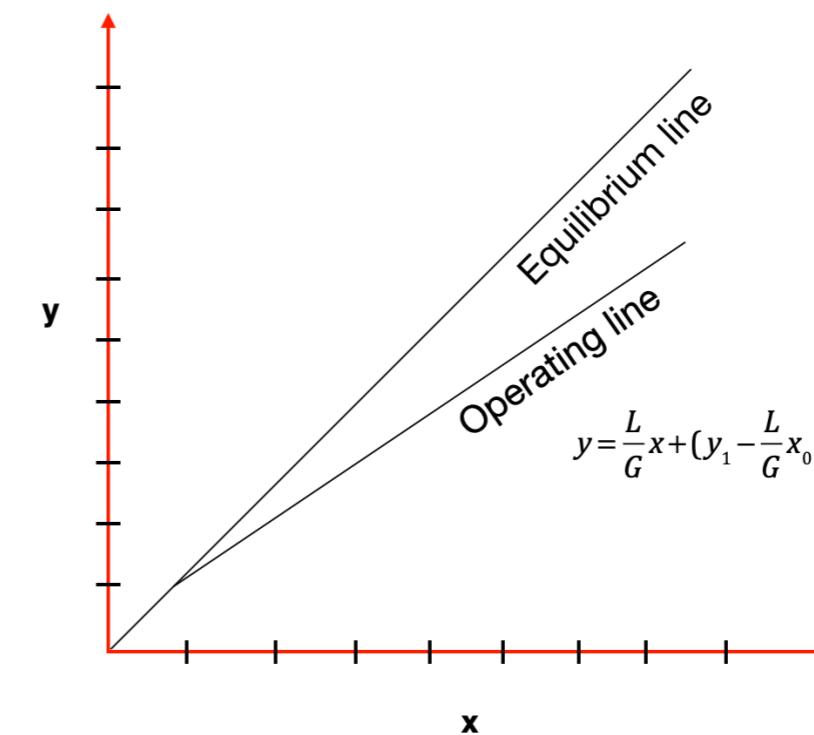
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Which one represents the case of using minimum amount of absorbent?

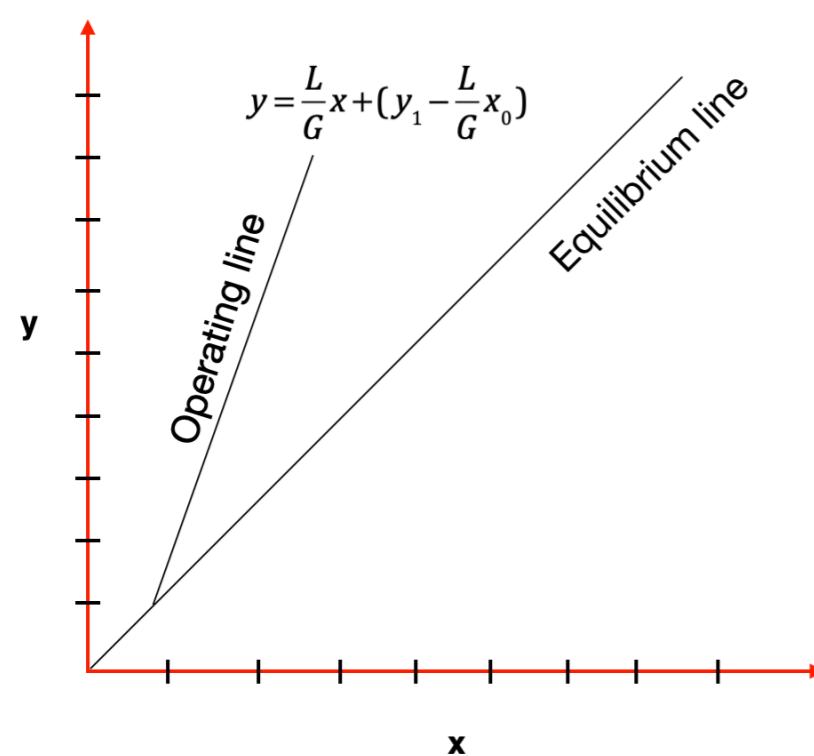
A.



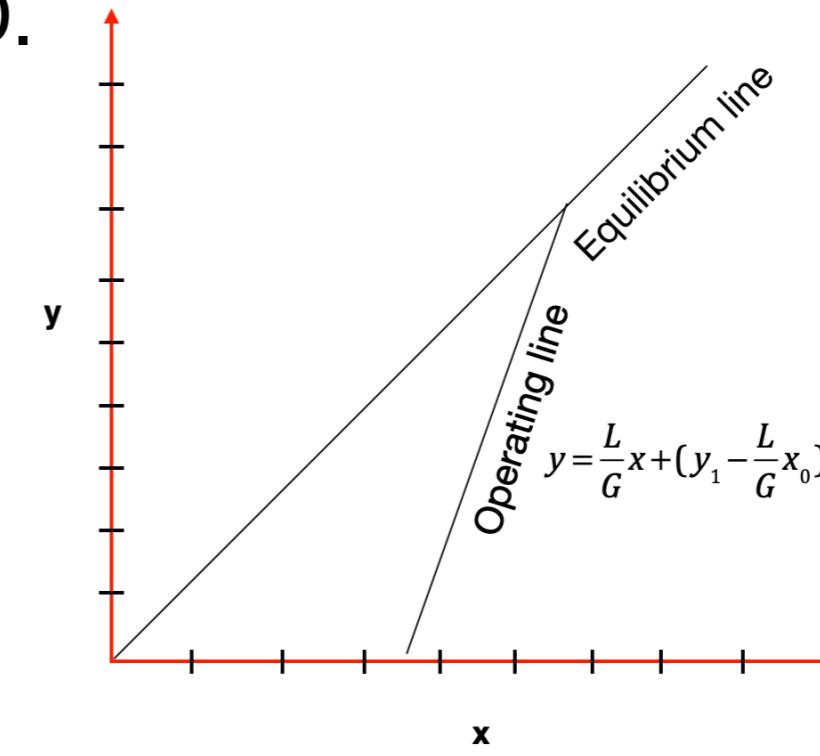
B.



C.

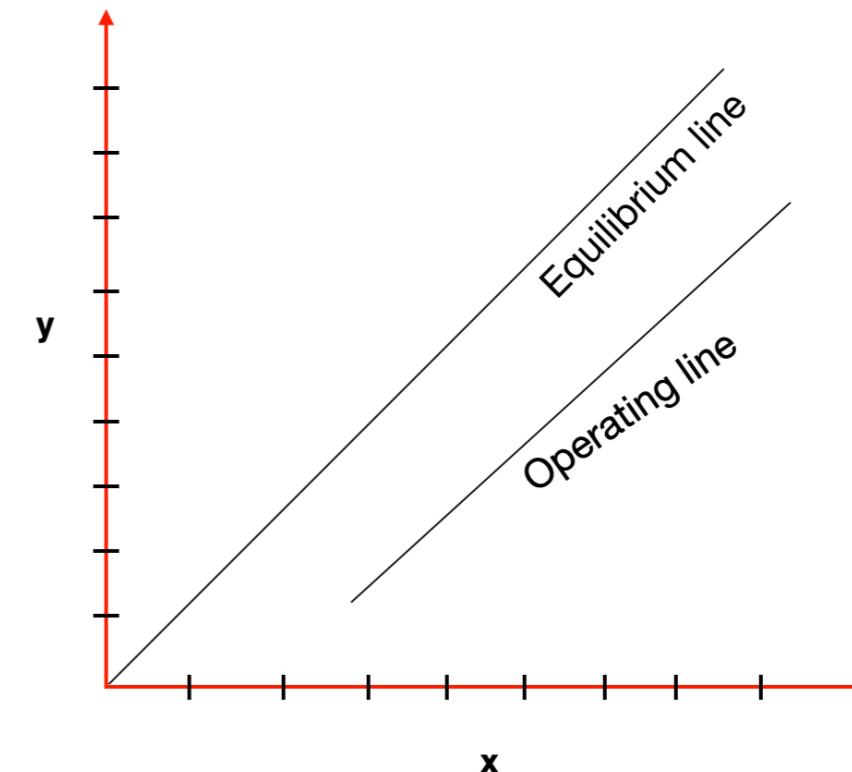
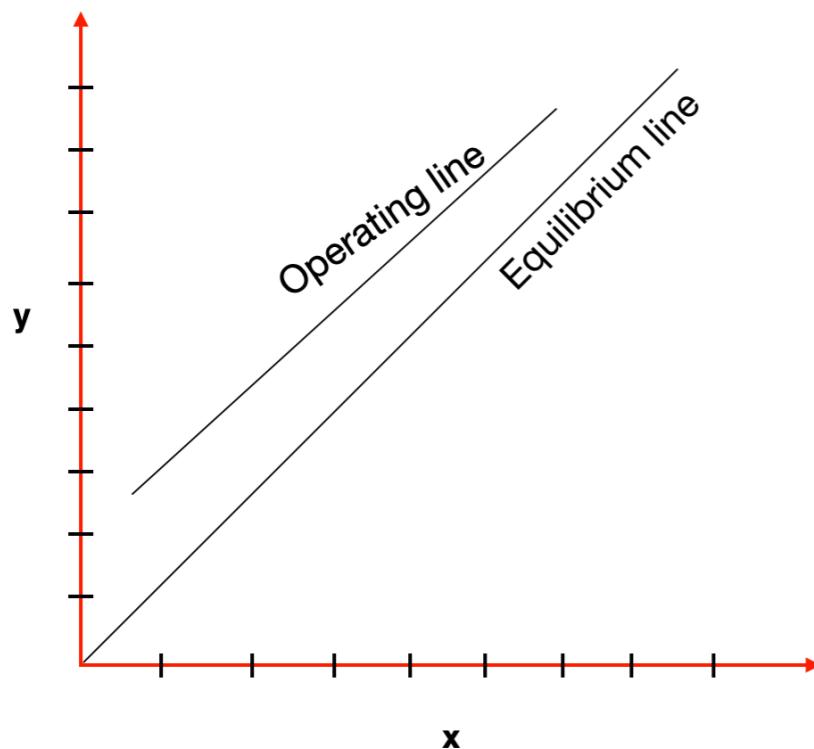


D.



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Why operating line is on the left side of the equilibrium line and not on the right side for absorption process



In-class exercise problem

100 mol/hr of natural gas containing 1.5% H₂S at 1 atm is to be processed to reduce concentration of H₂S by 10 fold. An absorbent is being used to remove H₂S where the mole fraction of H₂S in the inlet absorbent stream is 0.00001. Calculate number of needed equilibrium-staged absorption stages if L/G = 1.2 (L/G)_{min}. Calculate the exit concentration of absorbent. Henry coefficient is 50 bar.

