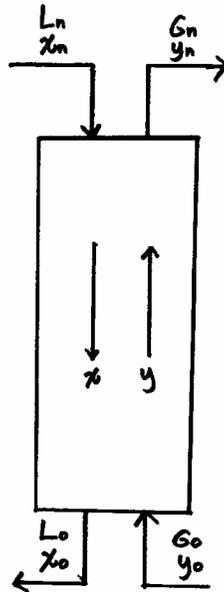


Absorption and Stripping (pp. 317-325, Seader and Henley)

Absorption: gas is purified; solute is absorbed from gas into liquid stream

Stripping: liquid is purified; solute stripped from liquid into gas



For dilute streams, assume constant gas and liquid flow rates:

$$G_o = G_n = G$$

$$L_o = L_n = L$$

Absorption

y_n is usually specified

mass balance around *top* of column

operating line:

$$y = x \left(\frac{L}{G} \right) + y_n - x_n \left(\frac{L}{G} \right)$$

gas film controls mass transfer
driving force = $(y - y^*)$

Stripping

x_o is usually specified

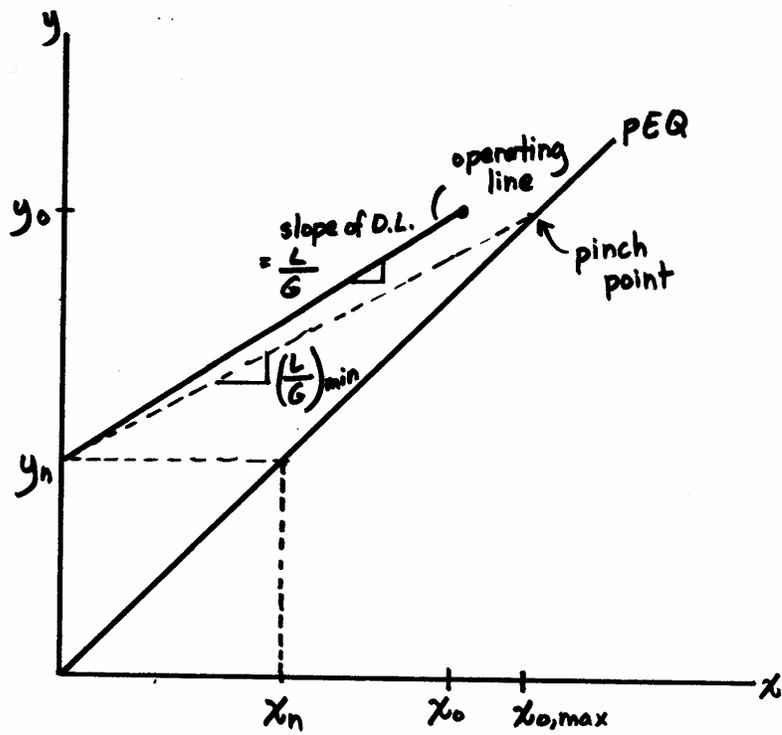
mass balance around *bottom* of column

operating line:

$$y = x \left(\frac{L}{G} \right) + y_o - x_o \left(\frac{L}{G} \right)$$

liquid film controls mass transfer
driving force = $(x^* - x)$

Absorption: operating line above PEQ line



Stripping: operating line below PEQ line

