Chemical Engineering 150B Second Midterm Review Sheet

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Task: bring A in air containing a mol% down to b mol%, using water.

Gas inlet = , water inlet = L0

Amount of A entering =

Amount of air entering =

Amount of A leaving in V1 =

Amount of A leaving in LN =

Operating line:

Equilibrium line: y = mx

For stripping (transfer of solute from L to V) N

For absorption (transfer of solute from V to L)

**Equimolar counterdiffusion**

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| --- | --- |
| If m’ small, gas phase controlling.  | If m’’ big, gas phase controlling.  |

**A diffusing through stagnant B**

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Plate absorption towers Packed column

For stripping (transfer of solute from L to V)

For absorption (transfer of solute from V to L)

a is the interfacial area in m2 per m3 volume of packed section S is the cross-sectional area of the tower.

if dilute

Concentrated solutions, stagnant B

Dilute solutions