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APPENDIX

Determination of Quantity of Hexane

Sponge	Air	Peak area for1 cm^3 air mixture (from chromatograph print out)
Standard(1μl)	Pure hexane	3.05422×10^5
Packing	Upstream	4.08396×10^5
	Downstream	1079.40918
No.4	Upstream	5929.5478
	Downstream	9884.19434
No.5	Upstream	2.04063×10^5
	Downstream	4014.78748
No.8	Upstream	4.79875×10^5
	Downstream	8592.37988

The Sample Calculation

Standard Reference

n-hexane density : 0.662 kg/lit

from chromatogram for hexane 10^{-6} l (1μl) $\equiv 3.05427\times10^5 \equiv (10^{-6})\times(0.662\times10^3)$

$\equiv 6.62\times10^{-4}$ g

CASE : Activated carbon packed column

Determination of hexane quantity adsorbed

for packing ; upstream air $= 4.08396\times10^{4}$

$$= \frac{(4.08396\times10^{4})\times(6.62\times10^{-4})}{(3.0542\times10^{5})}$$

hexane content $= 8.85181\times10^{-5}$ g

downstream air $= 1079.40918$

$$= \frac{(1079.40918)\times(6.62\times10^{-4})}{(3.0542\times10^{5})}$$

hexane content $= 2.3395\times10^{-6}$ g

$$\text{percent hexane adsorbed} = \frac{(8.85181\times10^{-5} - 2.3395\times10^{-6})\times100}{(8.85181\times10^{-5})}$$

$$= 97.35$$

VITA

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