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APPENDIX

Determination of Quantity of Hexane

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

The Sample Calculation

Standard Reference

n-hexane density : 0.662 kg/lit

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

$$\equiv 6.62 \times 10^{-4} \text{ g}$$

CASE : Activated carbon packed column

Determination of hexane quantity adsorbed

$$\text{for packing ; upstream air} = 4.08396 \times 10^4$$

$$= \frac{(4.08396 \times 10^4) \times (6.62 \times 10^{-4})}{(3.0542 \times 10^5)}$$

$$\text{hexane content} = 8.85181 \times 10^{-5} \text{ g}$$

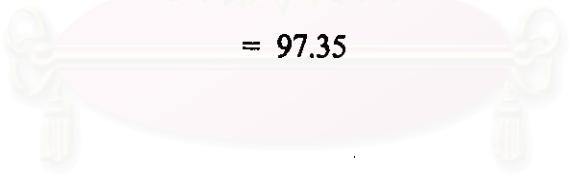
$$\text{downstream air} = 1079.40918$$

$$= \frac{(1079.40918) \times (6.62 \times 10^{-4})}{(3.0542 \times 10^5)}$$

$$\text{hexane content} = 2.3395 \times 10^{-6} \text{ g}$$

$$\text{percent hexane adsorbed} = \frac{(8.85181 \times 10^{-5} - 2.3395 \times 10^{-6}) \times 100}{(8.85181 \times 10^{-5})}$$

$$= 97.35$$



**สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย**

VITA

Miss Kwanruthai Daduon was born in Nakorn-Sri-Thammarat, Thailand on October 10, 1974. She received her Bachelor Degree of Engineering with a major of Chemical Engineering from the Faculty of Engineering, Rangsit University in 1996.



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย