LAMPIRAN

Lampiran 1. Penentuan Kurva Kalibrasi MBAS

Tabel 1.a. Absorbansi Larutan Standart untuk Kalibrasi

Konsentrasi (ppm)	Absorbansi
25	0,388
50	0,398
75	0,420
100	0,440
125	0,470

Tabel 1.b. Data Regresi untuk Kalibrasi

	C	A	$(C_i - \overline{C})$	$(A_i - \overline{A})$	$(C_i - \overline{C})(A_i - \overline{A})$	$(C_i - \overline{C})^2$
	0	0	-75	-0,425	31,725	5625
	25	0,388	-50	-0,035	1,75	2500
	50	0,398	-25	-0,025	0,625	625
	75	0,420	0	-0,003	0	0
	100	0,440	25	0,017	0,425	625
	125	0,470	50	0,047	2,35	2500
	$\overline{C}$ =75	$\overline{A}$ =0,423			Σ=36,875	Σ=11875

$$m = \frac{(C_i - \overline{C})(A_i - \overline{A})}{(C_i - C)^2}$$

$$= \frac{36,875}{11875}$$

$$= 0,0031$$

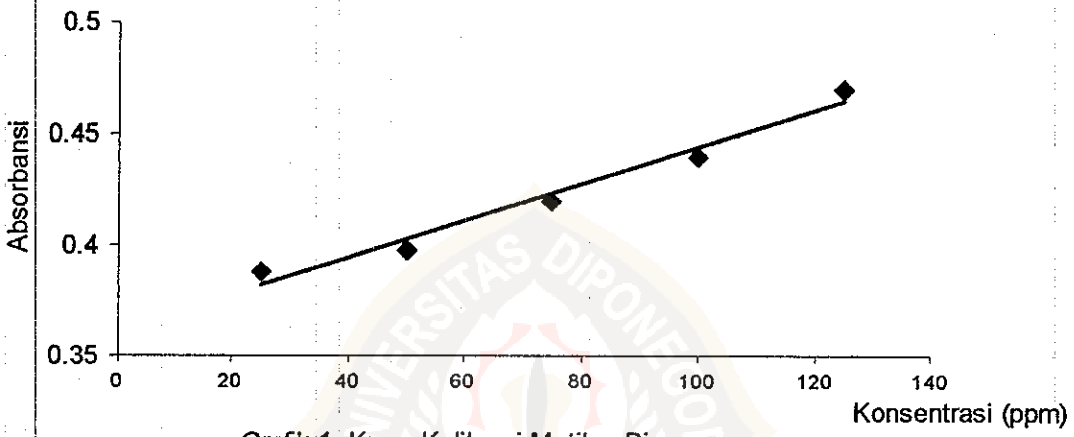
A = mC + n

n = A – mC

= 0,440 - 0,003 .100

= 0,13

A = 0,0031 C + 0,13



Grafik 1. Kurva Kalibrasi Metilen Biru

Lampiran 2. Perhitungan recovery

1. Tanpa Analisis MBAS

a. Volume tabung pembuat gelembung 11,19 cm^3

m = 0,201 gr

Sehingga konsentrasinya = $\frac{201\,mg}{1\,L} = 201$ ppm

Recovery = $\frac{201}{1000} \times 100\,\% = 20{,}1\,\%$

b. Volume tabung pembuat gelembung 21,98 cm^3

m = 0,290 gr

Sehingga konsentrasinya = $\frac{290\,mg}{1\,L} = 290$ ppm

Recovery = $\frac{290}{1000} \times 100\,\% = 29{,}0\,\%$

2. Dengan Analisis MBAS

a. Volume tabung pembuat gelembung 11,19 cm^3

[surfaktan] = 75,80 ppm

Recovery = $\frac{75{,}80}{1000} \times 100\,\% = 7{,}58\,\%$

b. Volume tabung pembuat gelembung 21,98 cm^3

[surfaktan] = 100,65 ppm

Recovery = $\frac{100{,}65}{1000} \times 100\,\% = 10{,}06\,\%$

Lampiran 3. Perhitungan Tegangan Permukaan

$$\text{Tegangan Permukaan } (\gamma) = \frac{r.g.h.\rho}{2}$$

Diketahui :

h_{air} = 3,2 cm

$h_{11,19}$ = 2,7 cm

$h_{21,98}$ = 2,4 cm

γ_{air} = 72 dyne/cm

ρ_{air} = 1 g/mL

$$r = \frac{2.\gamma}{g.h.d}$$

$$r = \frac{2.72\ \text{dyne/cm}}{980\ \text{cm/s}.3,2\ \text{cm}.1\ \text{g/mL}}$$

$r = 0,0459$ cm

$$\gamma_{11,19} = \frac{r.g.h.\rho}{2}$$

$$= \frac{0,0459.980\ .2,7\ .1}{2}$$

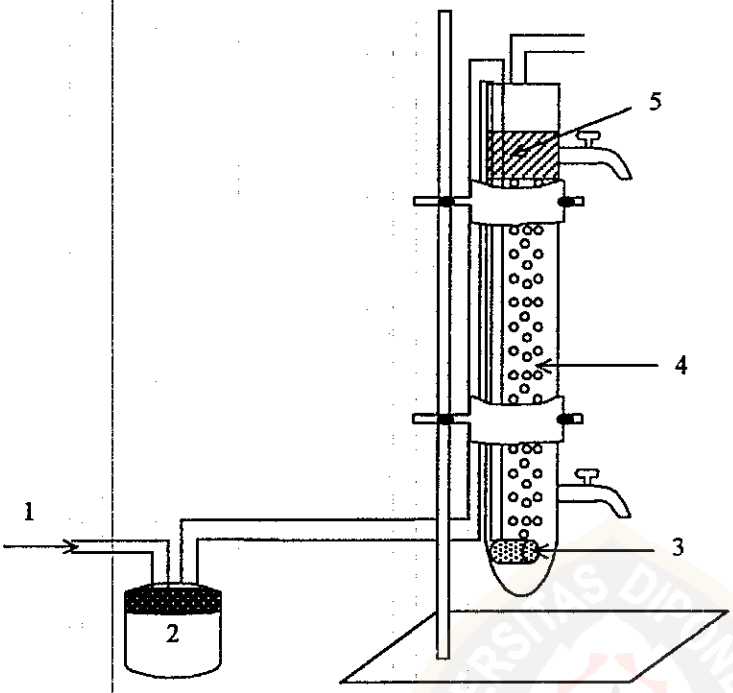
$= 60,8$ dyne/cm

$$\gamma_{21,98} = \frac{r.g.h.\rho}{2}$$

$$= \frac{0,0459.980\ .2,4\ .1}{2}$$

$= 54,1$ dyne/cm

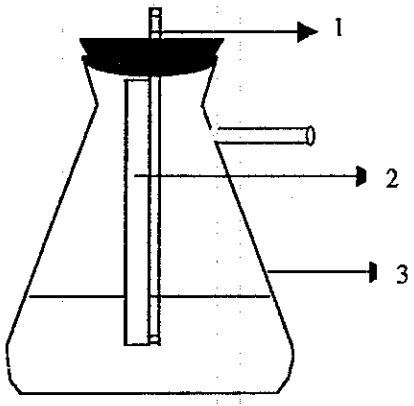
Lampiran 5. Desain Alat Proses Sublasi



1. Udara masuk
2. Tabung berisi etil asetat
3. Pori pembuat gelembung
4. Larutan surfaktan
5. Lapisan etil asetat

Gambar 1. Desain Alat Proses Sublasi

Lampiran 6. Alat Pengukur Tegangan Permukaan



Keterangan :

1. Pipa Kapiler
2. Penggaris
3. Erlenmeyer

Gambar 2. Alat Pengukur Tegangan Permukaan