

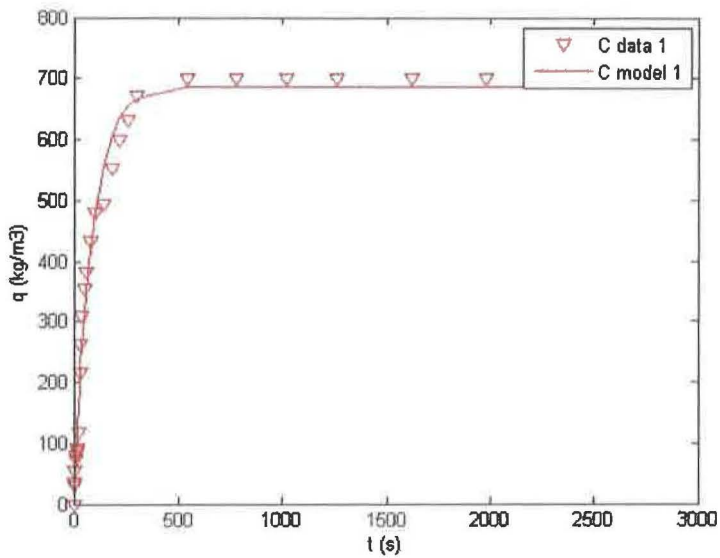
## LAMPIRAN A

### GRAFIK

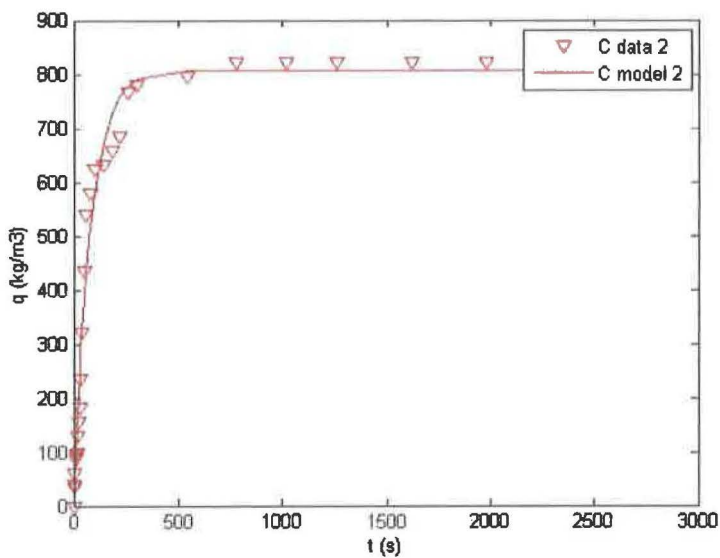


#### A.1 Metode dispersi isotherm Langmuir

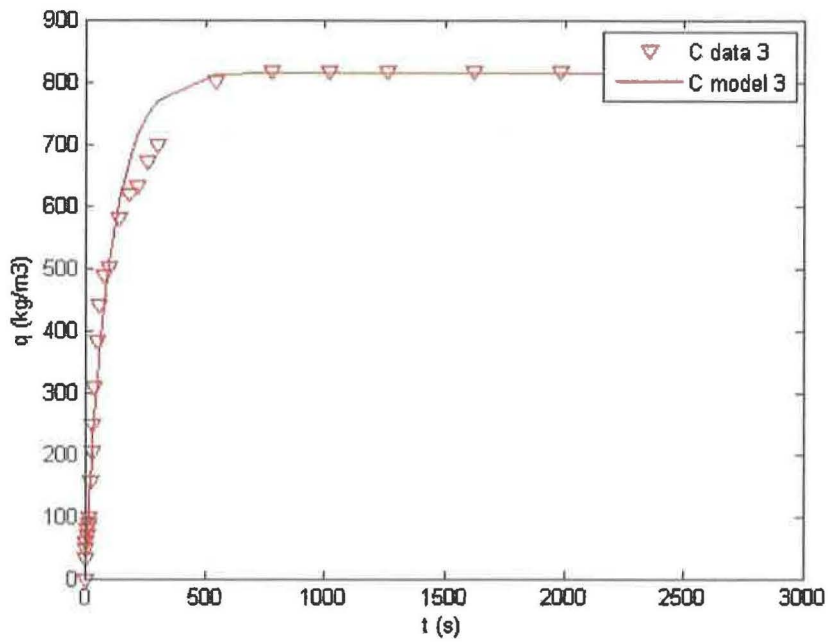
##### A.1.1 Grafik parameter anhidrida asetat 25 mL



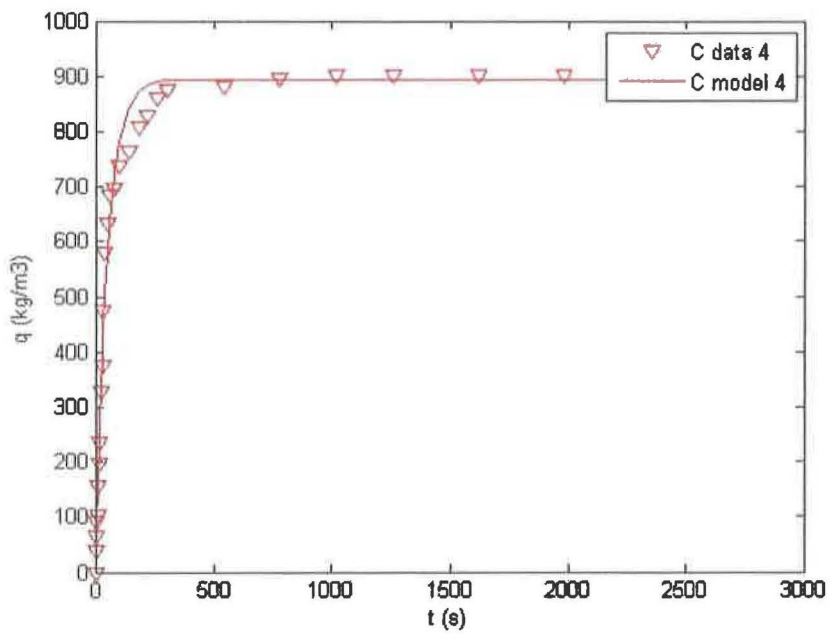
##### A.1.2 Grafik parameter anhidrida asetat 50 mL



## A.1.3 Grafik parameter polietilen glikol 25 mL

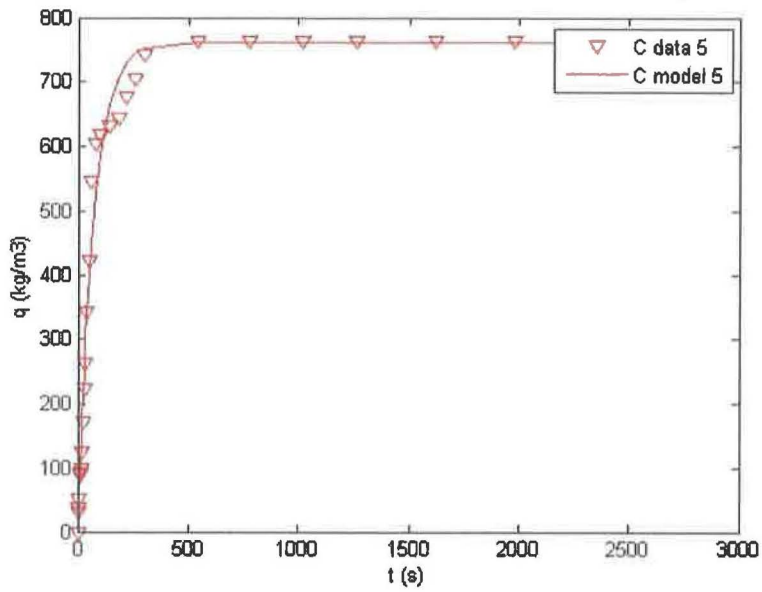


## A.1.4 Grafik parameter polietilen glikol 50 mL

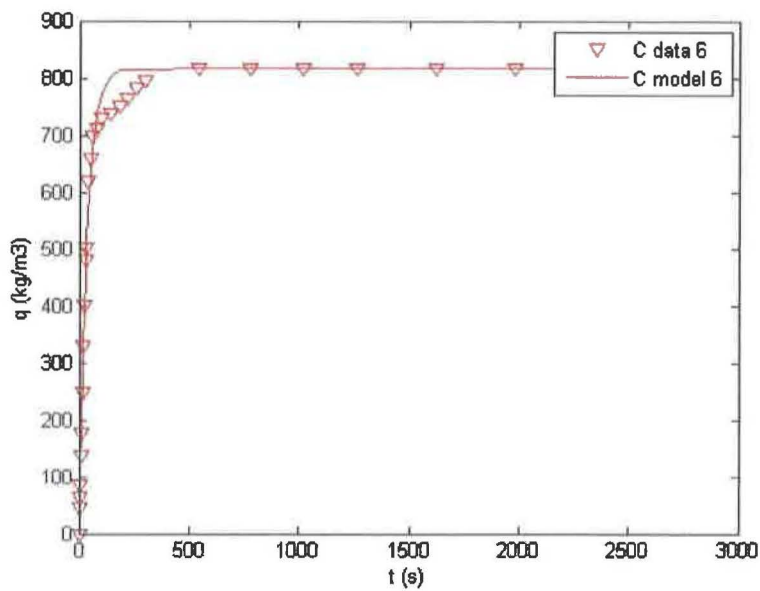


## A.2 Metode ekstruksi isotherm Langmuir

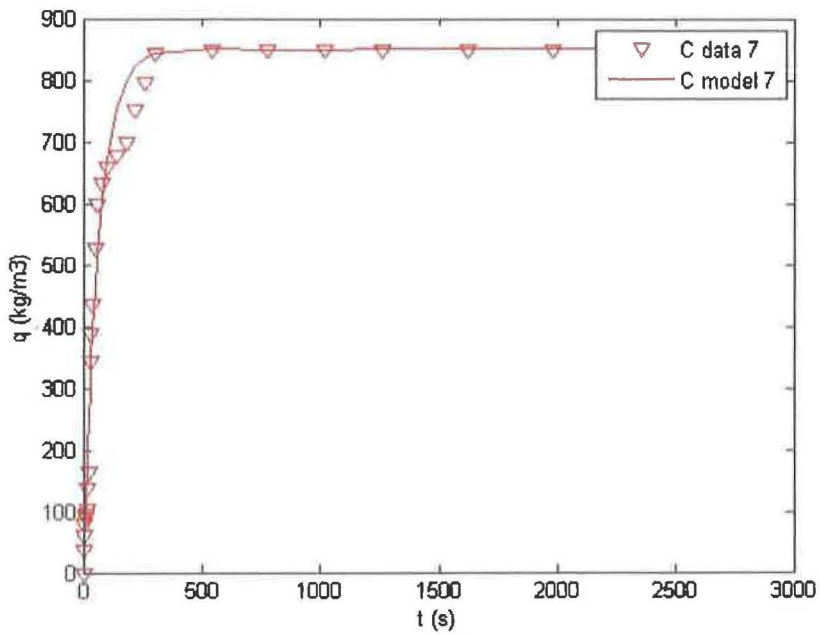
### A.2.1 Grafik parameter anhidrida asetat 25 mL



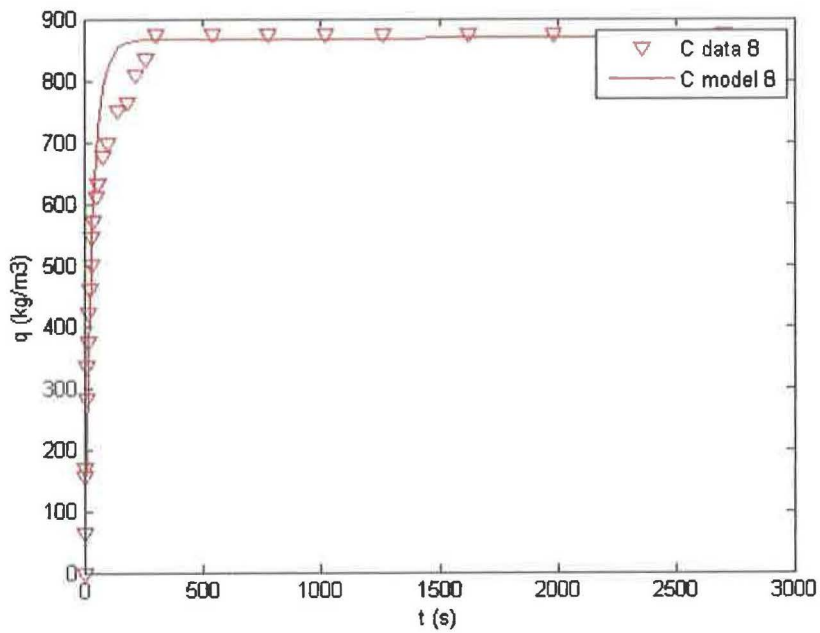
### A.2.2 Grafik parameter anhidrida asetat 50 mL



## A.2.3 Grafik parameter polietilen glikol 25 mL

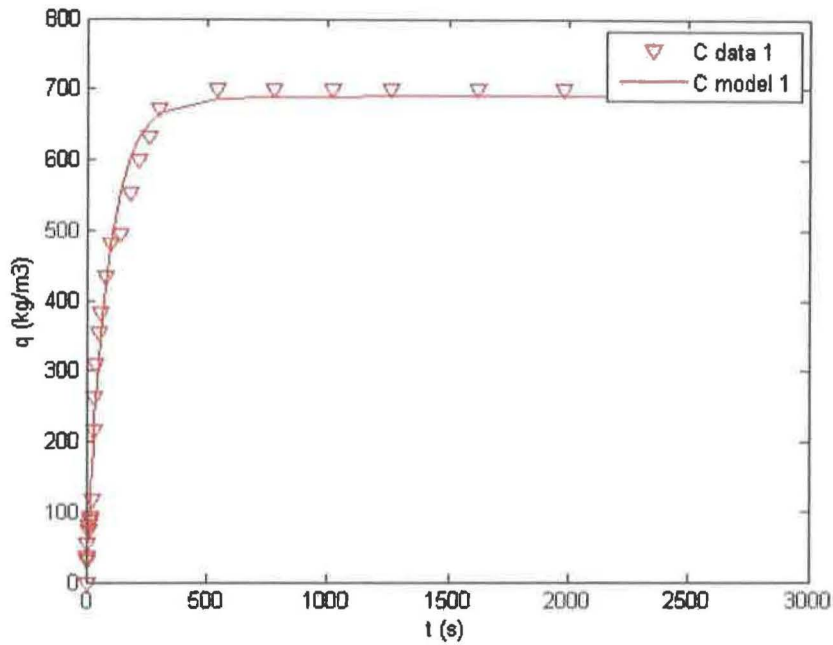


## A.2.4 Grafik parameter polietilen glikol 50 mL

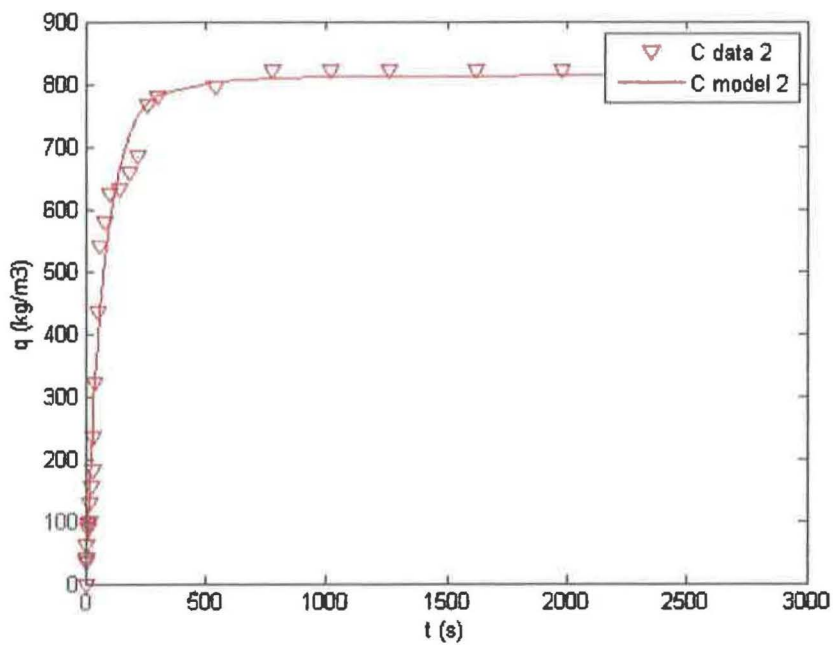


### A.3 Metode dispersi isoterm Freundlich

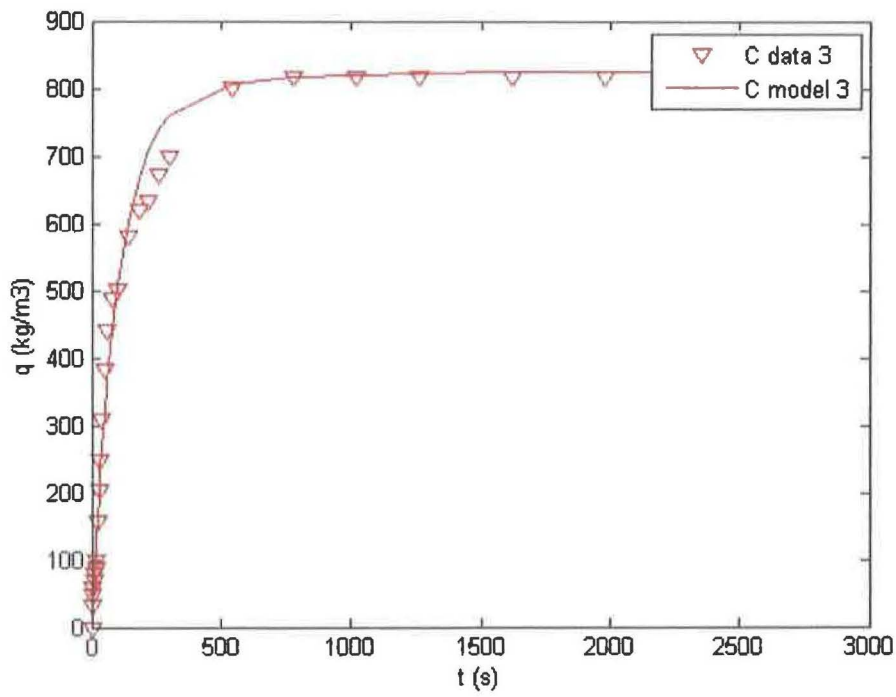
#### A.3.1 Grafik parameter anhidrida asetat 25 mL



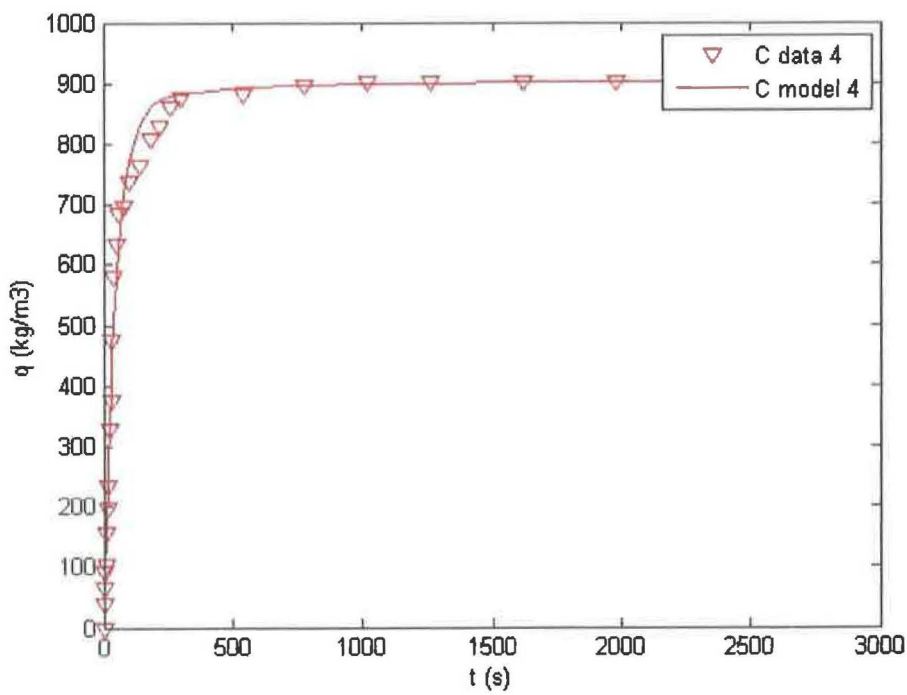
#### A.3.2 Grafik parameter anhidrida asetat 50 mL



## A.3.3 Grafik parameter polietilen glikol 25 mL

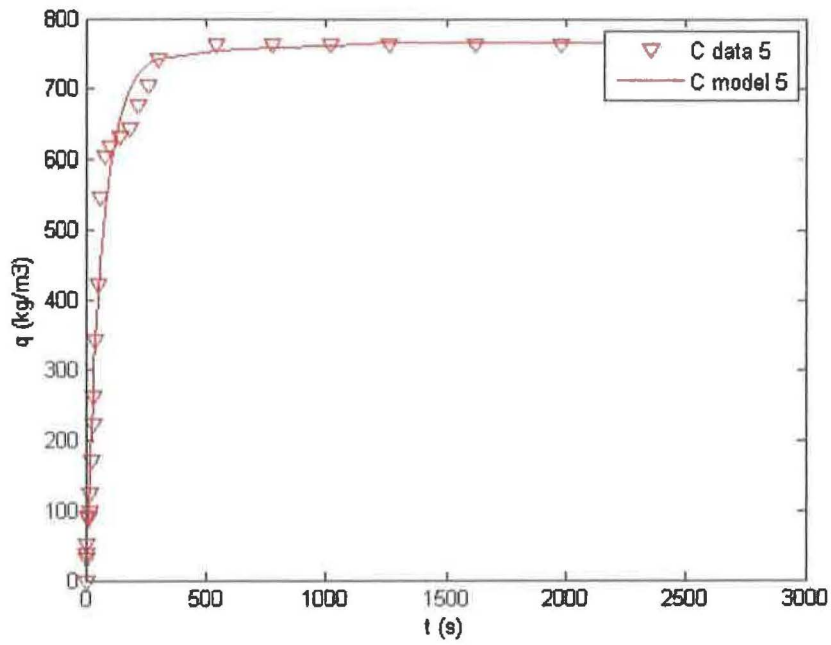


## A.3.4 Grafik parameter polietilen glikol 50 mL

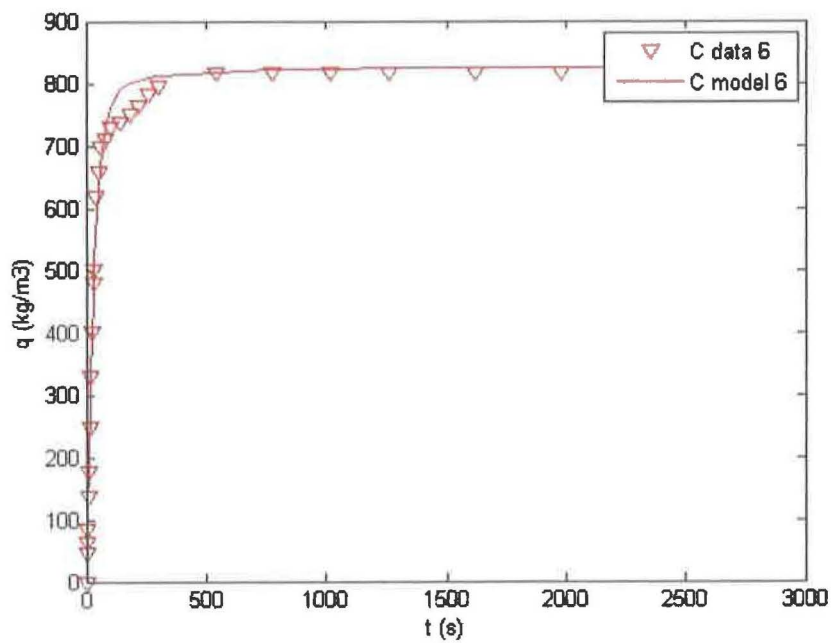


#### A.4 Metode ekstruksi isoterm Freundlich

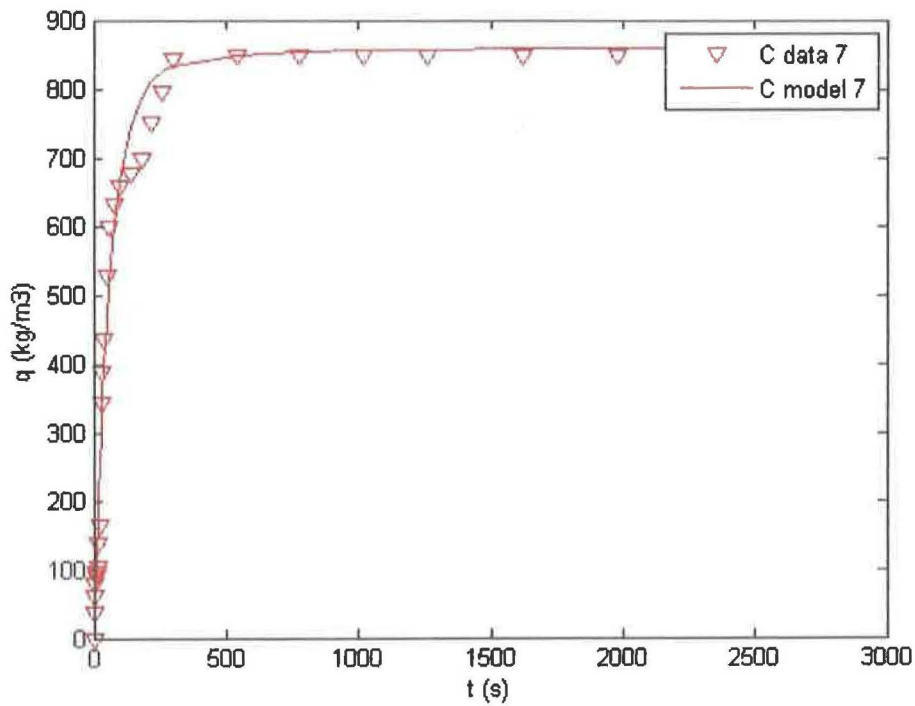
##### A.4.1 Grafik parameter anhidrida asetat 25 mL



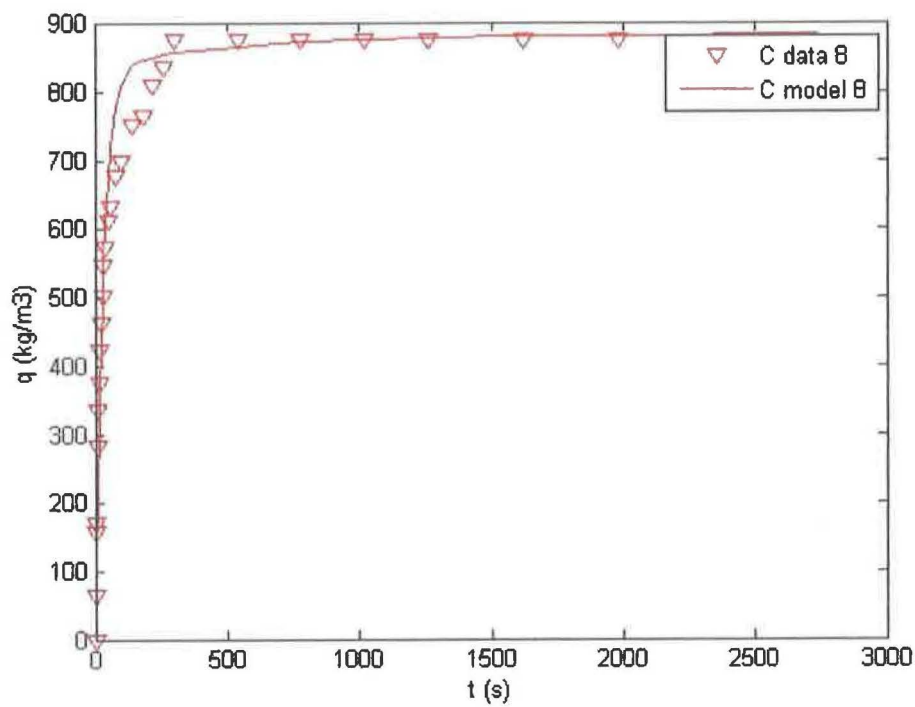
##### A.4.2 Grafik parameter anhidrida asetat 50 mL



## A.4.3 Grafik parameter polietilen glikol 25 mL



## A.4.4 Grafik parameter polietilen glikol 50 mL







## LAMPIRAN B

### SCRIPT MATLAB

- Berikut adalah script matlab untuk data metode dispersi isotherm Langmuir

#### M-file 1

```
function dydt=homogen(t,y,ds,kf,qo,kl)
%jari-jari adsorben
R=2*10^-3;
A=4*pi*R^2;
%volume larutan adsorpsix
V=1;
dr=R/19;
rhop=2100;
for i=1:21
    if (i==1)
        dydt(i)=-kf*3/R*(y(i)-(y(i+20)/(qo*kl-y(i+20)*kl)));
    elseif (i==2)
        dydt(i)=3*ds*((y(i+2)-2*y(i+1)+y(i))/dr^2);
    elseif (i==21)
        r(i)=dr*(i-2);
        dydt(i)= ds * (((kf/(rhop*ds*dr)*(y(i-20)-(y(i)/(qo*kl-
y(i)*kl)))))-(y(i-1)-y(i-2))/dr^2)+(kf/(rhop*ds)*(y(i-20)-(y(i)/(qo*kl-
y(i)*kl)))));
    else
        r(i)=dr*(i-2);
        dydt(i)=ds*(((y(i+1)-2*y(i)+y(i-1))/dr^2)+(y(i+1)-y(i-
1))/(r(i)*dr));
    end
end
dydt=dydt';
```

#### M-file 2

```
function E=homogen_estimasi_15(m)
t = [0
2
4
6
8
10
14
18
22
28
34
40
50
60
80
100
140
180
220
260
```

```

300
540
780
1020
1260
1620
1980
2700];
qdat1 = [0
32.6310
37.2405
55.6785
72.7995
81.3600
87.2865
92.5545
118.2360
217.0110
263.1060
309.2010
355.2960
381.6360
434.3160
480.4110
493.5810
552.8460
598.9410
631.8660
671.3760
700.5660
700.5660
700.5660
700.5660
700.5660
700.5660];
[t x1]=ode23(@homogen,t,[0 854.69*ones(1,20)],[],m(1),m(2),m(3),m(4));
qmod=x1(:,1);
E=sum((qdat1-qmod).^2)

```

### M-file 3

```

clc
clear
format longe
t = [0
2
4
6
8
10
14
18
22
28
34
40
50
60

```





```
t = [0
2
4
6
8
10
14
18
22
28
34
40
50
60
80
100
140
180
220
260
300
540
780
1020
1260
1620
1980
2700];
qdat1 = [0
32.6310
37.2405
55.6785
72.7995
81.3600
87.2865
92.5545
118.2360
217.0110
263.1060
309.2010
355.2960
381.6360
434.3160
480.4110
493.5810
552.8460
598.9410
631.8660
671.3760
700.5660
700.5660
700.5660
700.5660
700.5660
700.5660
700.5660];
[t x1]=ode23(@homogen,t,[0 854.69*ones(1,20)],[],m(1),m(2));
qmod=x1(:,1);
E=sum((qdat1-qmod).^2)
```

**M-file 3**

```
clc
clear
format longe
t = [0
2
4
6
8
10
14
18
22
28
34
40
50
60
80
100
140
180
220
260
300
540
780
1020
1260
1620
1980
2700];
qdat1 = [0
32.6310
37.2405
55.6785
72.7995
81.3600
87.2865
92.5545
118.2360
217.0110
263.1060
309.2010
355.2960
381.6360
434.3160
480.4110
493.5810
552.8460
598.9410
631.8660
671.3760
700.5660
700.5660
700.5660
700.5660
700.5660
700.5660
```

