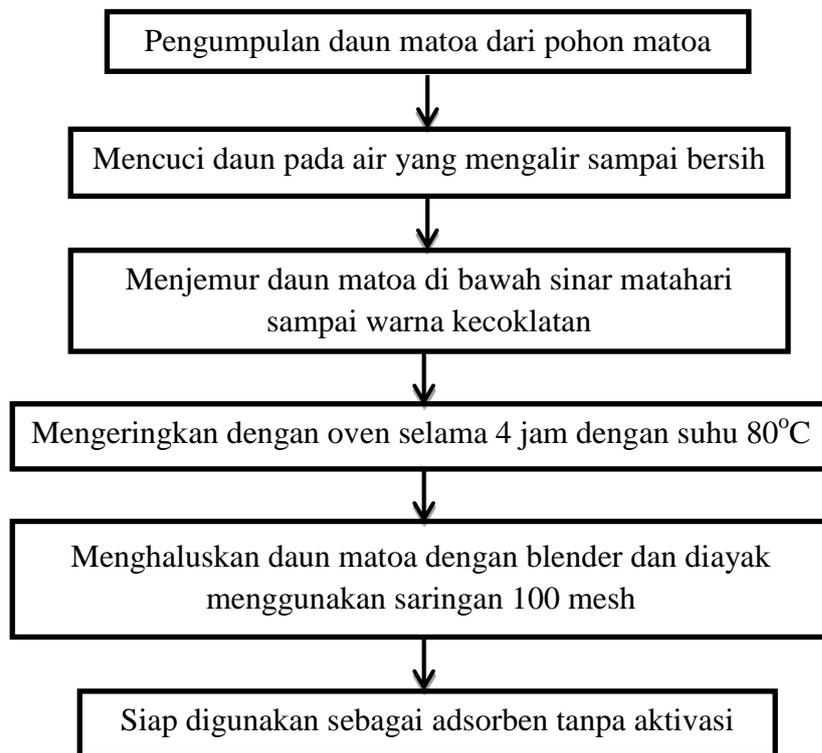


## LAMPIRAN

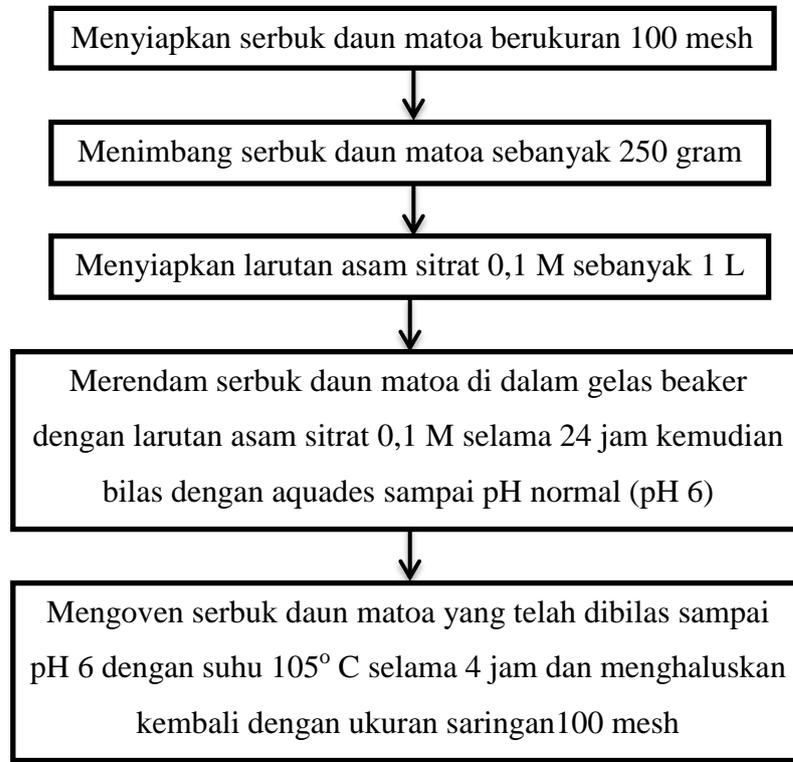
### LAMPIRAN I

#### LANGKAH KERJA PENELITIAN ADSORBEN DAUN MATOA

##### A. Persiapan Adsorben Daun Matoa



## B. Aktivasi Adsorben Daun Matoa dengan Asam Sitrat

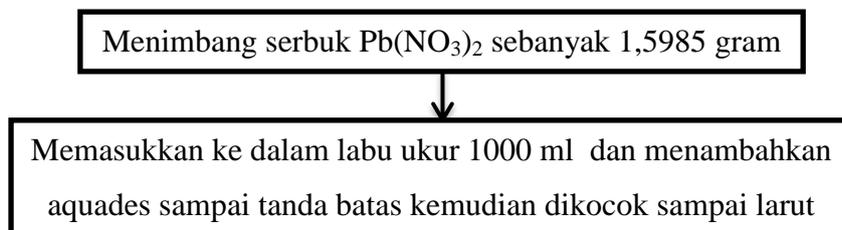


Perhitungan Asam Sitrat 0,1 M

$$M = \frac{\text{Gram}}{\text{Mr C}_6\text{H}_8\text{O}_7} \times \frac{1000}{1000}$$
$$0,1 M = \frac{\text{gram}}{210} \times 1$$
$$= 21 \text{ gram}$$

Sebanyak 21 gram serbuk asam sitrat dilarutkan kedalam 1 liter aquades.

## C. Pembuatan Larutan Pb(NO<sub>3</sub>)<sub>2</sub> 1000 ppm



Perhitungan serbuk  $Pb(NO_3)_2$  untuk membuat larutan  $Pb(NO_3)_2$  1000 ppm

$$Massa = \frac{ppm \times V \times Mr Pb(NO_3)_2}{Ar Pb(NO_3)_2}$$

$$Massa = \frac{1000 \text{ mg/L} \times 1L \times 331,21}{207,2}$$

$$Massa = 1598,5 \text{ mg} = 1,5985 \text{ gram}$$

Perhitungan membuat larutan  $Pb(NO_3)_2$  50 ppm dari 1000 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 1000 \text{ ppm} = 1000 \text{ ml} \times 50 \text{ ppm}$$

$$V_1 = 50 \text{ ml}$$

Perhitungan membuat larutan  $Pb(NO_3)_2$  100 ppm dari 1000 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 1000 \text{ ppm} = 100 \text{ ml} \times 100 \text{ ppm}$$

$$V_1 = 10 \text{ ml}$$

Perhitungan membuat larutan  $Pb(NO_3)_2$  150 ppm dari 1000 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 1000 \text{ ppm} = 100 \text{ ml} \times 150 \text{ ppm}$$

$$V_1 = 15 \text{ ml}$$

Perhitungan membuat larutan  $Pb(NO_3)_2$  200 ppm dari 1000 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 1000 \text{ ppm} = 100 \text{ ml} \times 200 \text{ ppm}$$

$$V_1 = 20 \text{ ml}$$

Perhitungan membuat larutan  $Pb(NO_3)_2$  250 ppm dari 1000 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 1000 \text{ ppm} = 100 \text{ ml} \times 250 \text{ ppm}$$

$$V_1 = 25 \text{ ml}$$

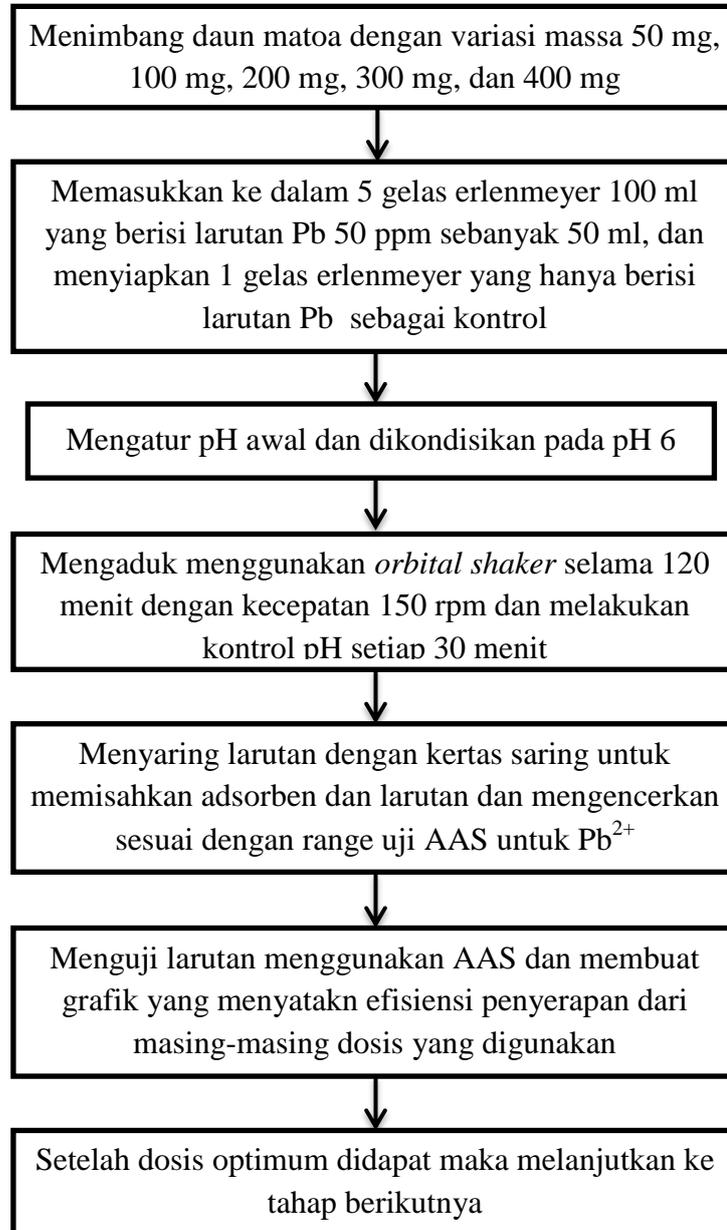
Perhitungan membuat larutan  $Pb(NO_3)_2$  300 ppm dari 1000 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

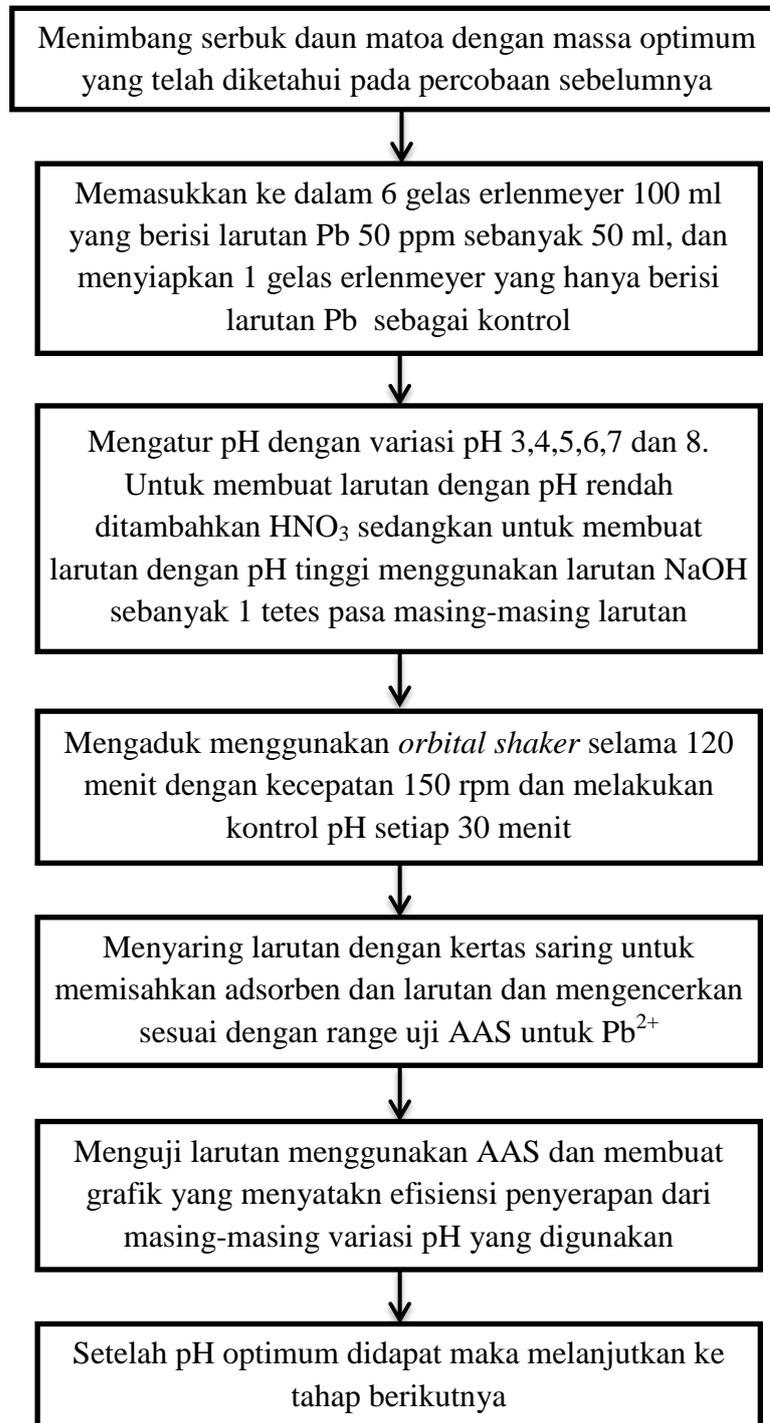
$$V_1 \times 1000 \text{ ppm} = 100 \text{ ml} \times 300 \text{ ppm}$$

$$V_1 = 30 \text{ ml}$$

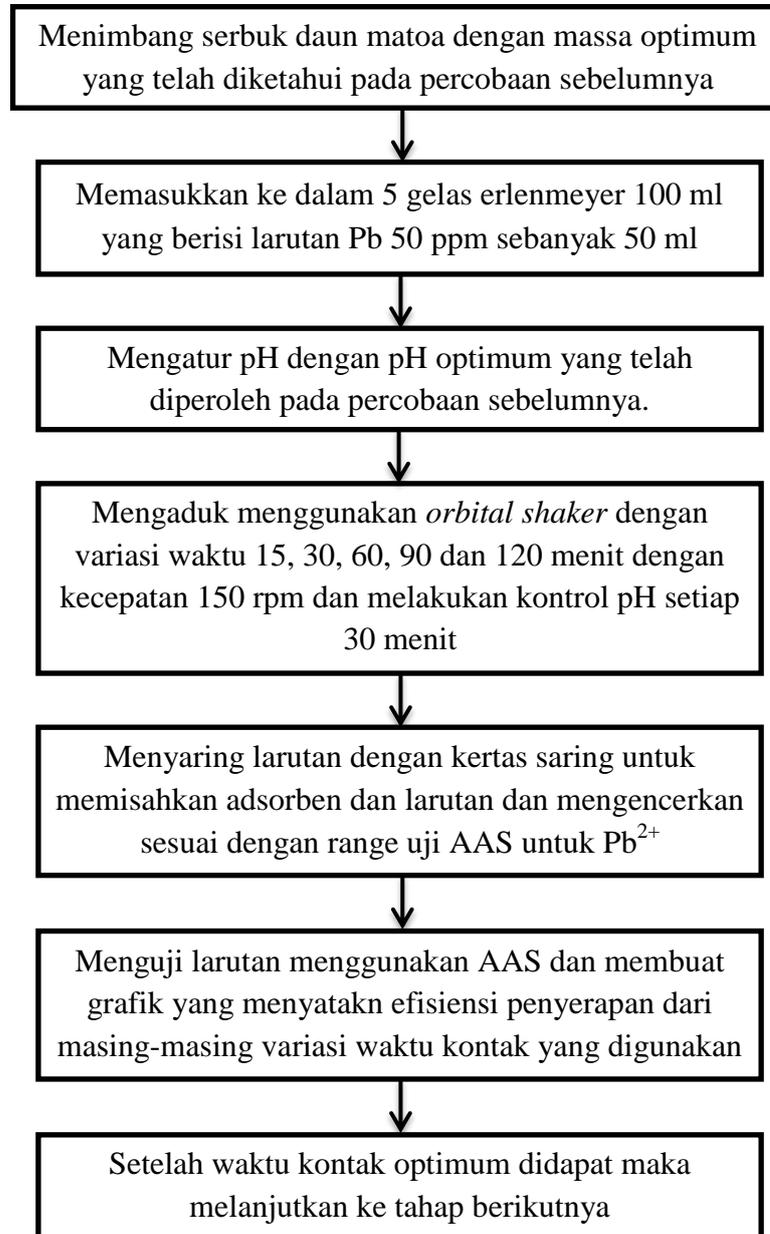
#### D. Uji Massa Optimum



### E. Uji pH Optimum



## F. Uji Penentuan Waktu Kontak Optimum



### G. Uji Variasi Konsentrasi Larutan $Pb^{2+}$

