

LAMPIRAN II

PERHITUNGAN

Nilai Fluks

$$J = \frac{V}{A \cdot t}$$

A. Membran dengan Pengekstrak HCl

1. Untuk $t = 100$ menit = 1,6667 jam

Volume permeat = 125 ml = 0,125 L

$$\begin{aligned} J &= \frac{V}{A \cdot t} \\ &= \frac{0,125 \text{ L}}{0,05024 \text{ m}^2 \cdot 1,6667 \text{ jam}} \\ &= 14,9283 \text{ L/m}^2\text{jam} \end{aligned}$$

2. Untuk $t = 120$ menit = 2 jam

Volume permeat = 95 ml = 0,095 L

$$\begin{aligned} J &= \frac{V}{A \cdot t} \\ &= \frac{0,095 \text{ L}}{0,05024 \text{ m}^2 \cdot 2 \text{ jam}} \\ &= 9,4546 \text{ L/m}^2\text{jam} \end{aligned}$$

3. Untuk $t = 140$ menit = 2,3333 jam

Volume permeat = 80 ml = 0,08 L

$$\begin{aligned} J &= \frac{V}{A \cdot t} \\ &= \frac{0,08 \text{ L}}{0,05024 \text{ m}^2 \cdot 2,3333 \text{ jam}} \\ &= 6,8244 \text{ L/m}^2\text{jam} \end{aligned}$$

B. Membran dengan Pengekstrak HNO_3

1. Untuk $t = 100$ menit = 1,6667

Volume permeat = 100 ml = 0,1 L

$$\begin{aligned} J &= \frac{V}{A \cdot t} \\ &= \frac{0,125 \text{ L}}{0,05024 \text{ m}^2 \cdot 1,6667 \text{ jam}} \\ &= 11,9427 \text{ L/m}^2\text{jam} \end{aligned}$$

2. Untuk $t = 120$ menit = 2 jam

Volume permeat = 95 ml = 0,95 L

$$\begin{aligned} J &= \frac{V}{A \cdot t} \\ &= \frac{0,95 \text{ L}}{0,05024 \text{ m}^2 \cdot 2 \text{ jam}} \\ &= 9,4546 \text{ L/m}^2\text{jam} \end{aligned}$$

3. Untuk $t = 140$ menit = 2,3333 jam

Volume permeat = 90 ml = 0,09 L

$$\begin{aligned} J &= \frac{V}{A \cdot t} \\ &= \frac{0,09 \text{ L}}{0,05024 \text{ m}^2 \cdot 2,3333 \text{ jam}} \\ &= 7,6774 \text{ L/m}^2\text{jam} \end{aligned}$$