LAMPIRAN 1

Perhitungan rendemen:

\[
\begin{align*}
\text{HCOOH} &+ \text{CH} - \text{CH} + (\text{CH}_3\text{CO})_2\text{O} \rightarrow \text{CH} - \text{CH} + 2 \text{CH}_3\text{COOH} \\
\text{H}_5\text{C} & \quad \text{COOH} \\
\text{H}_5\text{C} & \quad \text{NH}_2 \\
\text{H}_5\text{C} & \quad \text{NH} \\
\text{H} - \text{C} & \quad \text{O}
\end{align*}
\]

<table>
<thead>
<tr>
<th></th>
<th>0,65</th>
<th>0,01</th>
<th>0,08</th>
<th>0,01</th>
<th>0,02</th>
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maka massa teoritis produk (N-formil valin) = 0,01 mol x 145,16 g/mol

\[= 1,4516 \text{ g}\]

I. Rendemen selama 30 menit = \(\frac{1,3350}{1,4516}\) x 100 % = 92 %

II. Rendemen selama 60 menit = \(\frac{1,2900}{1,4516}\) x 100 % = 89 %

III. Rendemen selama 90 menit = \(\frac{1,3350}{1,4516}\) x 100 % = 92 %

IV. Rendemen selama 120 menit = \(\frac{1,3200}{1,4516}\) x 100 % = 91 %

V. Rendemen selama 150 menit = \(\frac{1,3350}{1,4516}\) x 100 % = 92 %

VI. Rendemen selama 180 menit = \(\frac{1,3500}{1,4516}\) x 100 % = 93 %
LAMPIRAN 2

Skema Kerja

Valin 1,1715 g (0,01 mol)

+ asam format 90 % 25 mL
→ diaduk pada T kamar ½ jam

Garam ammonium

+ anhidrida asetat 8,3 mL
→ diaduk pada T kamar dengan variasi waktu (30, 60, 90, 120, 150, 180 menit)
→ + air-es 8 mL

Campuran
→ Rotary evaporator

Filtrat
→ Residu

KLT
→ direkristalisasi dengan etanol

Kristal murni
→ ditentukan titik lelehnya

N-formil valin
Spektrofotometer IR