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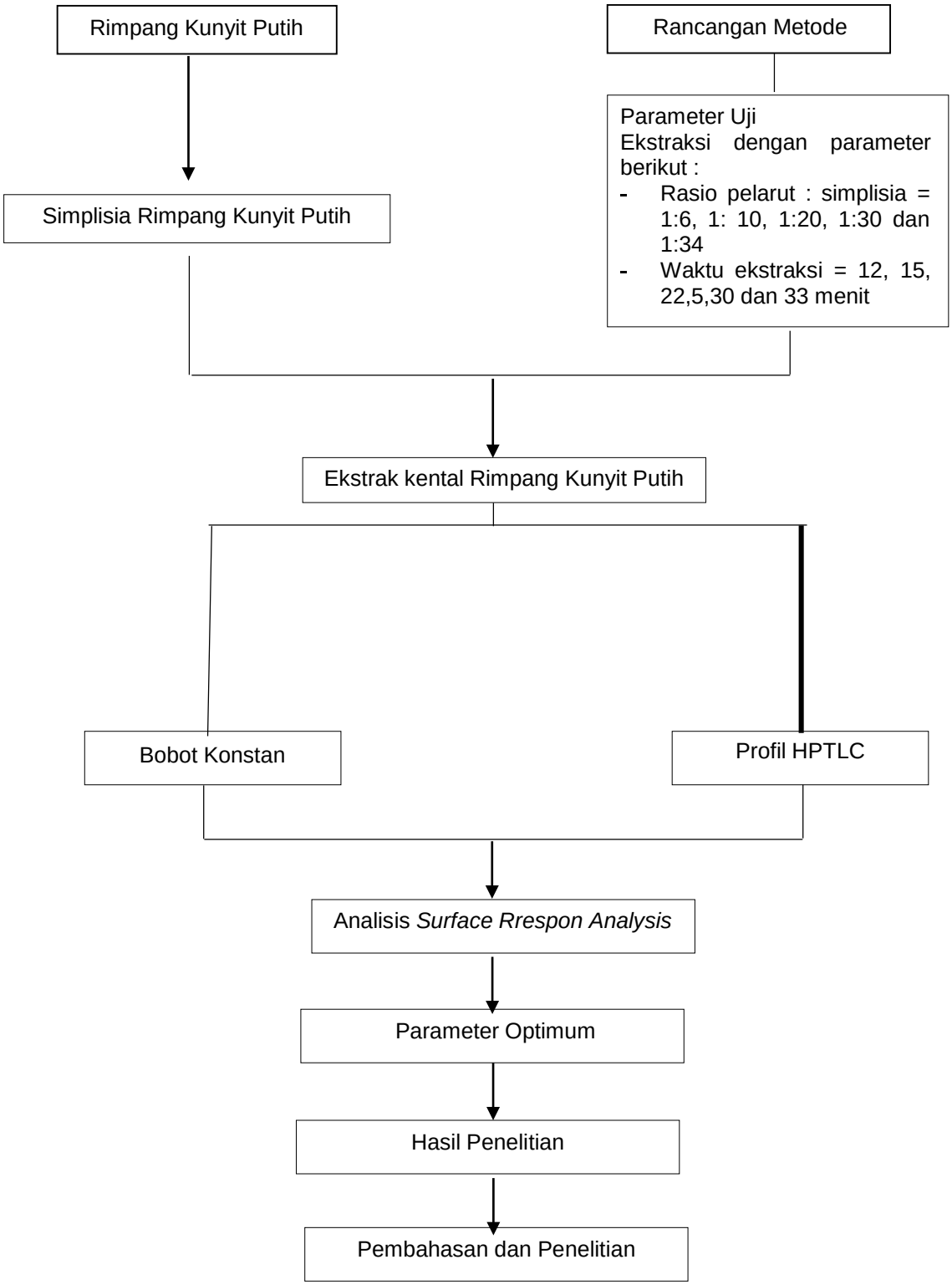
Lampiran 1. Skema Kerja Penelitian



Lampiran 2. Dokumentasi Penelitian

Gambar 10. Sampel temu putih (*C. zedoaria* Rosc*.)* dicuci menggunakan air

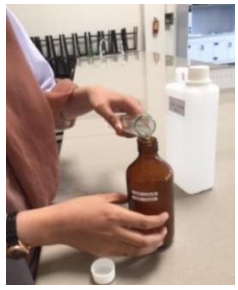
Gambar 11. Sampel ditimbang

Gambar 12. Sampel temu putih (*C. zedoaria* Rosc*.)* dipotong kecil-kecil

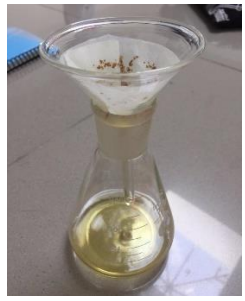
Gambar 13. Sampel temu putih (*C. zedoaria* Rosc*.)* dioven menggunakan suhu 50°C

Gambar 14. Sortasi kering simplisia temu putih (*C. zedoaria* Rosc.)

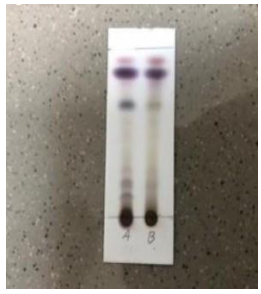
Gambar 15. Simplisia temu putih (*C. zedoaria* Rosc*.)* ditimbang



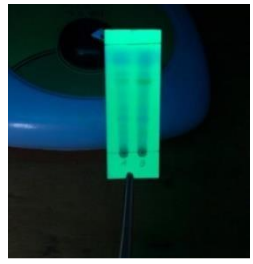
Gambar 16. Simplisia temu putih (*C. zedoaria* Rosc.) dimaserasi menggunakan pelarut etanol 96%



Gambar 17. Hasil maserasi disaring dan diapatkan ektsrak cair



Gambar 18. Hasil KLT yang telah disemprot dengan pereaksi H_2SO_4 dan dipanaskan



Gambar 19. Hasil KLT dibawah UV_{254}

Gambar 20. Proses ekstraksi menggunakan metode *Ultrasonic Assisted-Extraction*

Gambar 21. Proses penyaringan hasil ekstraksi

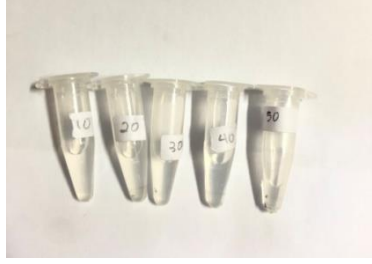
Gambar 22. Proses pengentalan ekstrak menggunakan alat *rotary evaporator*

Gambar 23. Hasil ekstrak yang telah dikentalkan

Gambar 24. Proses pengenceran ekstrak dengan rasio 1:10

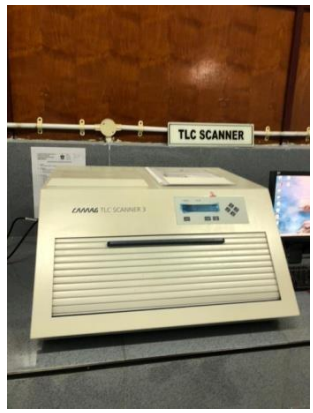
Gambar 25. Proses pengenceran ekstrak dengan rasio 1:20

Gambar 26. Proses pengenceran ekstrak dengan rasio 1:30

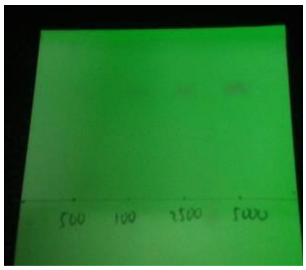


Gambar 27. Proses pengenceran baku eugenol 500-5000 ppm

Gambar 28. Proses pengembangan menggunakan eluen toluen:etil asetat (10:1)



Gambar 29. Analisis menggunakan alat TLC scanner



Gambar 30 . Penampakan noda hasil pengembangan baku dibawah UV_{254}

Gambar 31. Penampakan noda hasil pengembangan baku dibawahUV_{366}

Lampiran 3. Perhitungan Rendemen Hasil Ekstraksi UAE

1. Rasio 1:10 waktu 15 menit

$$\text{Rendemen (\%)} = \frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)} \text{ x } 100\%$$

$$= \frac{0{,}61}{10} \text{ x } 100\%$$

$$= 6{,}1\ \%$$

2. Rasio 1:10 waktu 30 menit

$$\text{Rendemen (\%)} = \frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)} \text{ x } 100\%$$

$$= \frac{0{,}53}{10} \text{ x } 100\%$$

$$= 5{,}3\ \%$$

3. Rasio 1:10 waktu 22,5 menit

$$\text{Rendemen (\%)} = \frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)} \text{ x } 100\%$$

$$= \frac{0{,}52}{10} \text{ x } 100\%$$

$$= 5{,}2\ \%$$

4. Rasio 1:20 waktu 12 detik

$$\text{Rendemen (\%)} = \frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)} \text{ x } 100\%$$

$$= \frac{0{,}72}{10} \text{ x } 100\%$$

$$= 7{,}2\ \%$$

5. Rasio 1:20 waktu 22,5 menit

$$\text{Rendemen (\%)} = \frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)} \text{ x } 100$$

$$= \frac{0{,}62}{10} \text{ x } 100\%$$

= 6,2 %

6. Rasio 1:20 waktu 22,5 menit

Rendemen (%) = $\frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)}$ x 100%

= $\frac{0,5}{10}$ x 100%

= 5 %

7. Rasio 1:20 waktu 22,5 menit

Rendemen (%) = $\frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)}$ x 100%

= $\frac{0,46}{10}$ x 100%

= 4,6 %

8. Rasio 1:20 waktu 22,5 menit

Rendemen (%) = $\frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)}$ x 100%

= $\frac{0,53}{10}$ x 100%

= 5,3 %

9. Rasio 1:30 waktu 22,5 menit

Rendemen (%) = $\frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)}$ x 100%

= $\frac{0,6}{10}$ x 100%

= 6 %

10. Rasio 1:20 waktu 32 menit

Rendemen (%) = $\frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)}$ x 100%

= $\frac{0,87}{10}$ x 100%

= 8,7 %

11. Rasio 1:30 waktu 15 menit

Rendemen (%) = $\frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)}$ x 100%

= $\frac{0,88}{10}$ x 100%

= 8,8 %

12. Rasio 1:30 waktu 30 menit

Rendemen (%) = $\frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)}$ x 100%

= $\frac{0,89}{10}$ x 100%

= 8,9 %

13. Rasio 1:30 waktu 15 menit

Rendemen (%) = $\frac{Bobot\ akhir\ ekstrak\ (g)}{Bobot\ awal\ simplisia\ (g)}$ x 100%

= $\frac{0,96}{10}$ x 100%

= 9,6 %

Perhitungan Konsentrasi Eugenol Hasil Ekstraksi UAE

1. Rasio simplisia dan pelarut 1:10 dengan waktu ekstraksi 1 menit

y = 1465x + 1278

3492,4 = 1465x + 1278

x = $\frac{2213,8}{1465}$

x = 1,51

2. Rasio simplisia dan pelarut 1:10 dengan waktu ekstraksi 3 menit

y = 1465x + 1278

2157 = 1465x + 1278

x = $\frac{879}{1465}$

x = 0,6

3. Rasio simplisia dan pelarut 1:10 dengan waktu ekstraksi 5 menit

y = 1465x + 1278

1454,9 = 1465x + 1278

$x = \frac{177}{1465}$

x = 0,12

4. Rasio simplisia dan pelarut 1:20 dengan waktu ekstraksi 9 menit

y = 1465x + 1278

6296,4 = 1465x + 1278

$x = \frac{5018.4}{1465}$

x = 3 , 4 2

5. Rasio simplisia dan pelarut 1:20 dengan waktu ekstraksi 30 menit

y = 1.465x + 1278

5332,4 = 1465x + 1278

$x = \frac{4054.4}{1465}$

x = 2,76

6. Rasio simplisia dan pelarut 1:20 dengan waktu ekstraksi 30 menit

y = 1465x + 1278

1918,6 = 1465x + 1278

$x = \frac{640}{1465}$

x = 0,43

7. Rasio simplisia dan pelarut 1:20 dengan waktu ekstraksi 51 menit

y = 1465x + 1278

4739,8 = 1465x + 1278

$x = \frac{3462}{1.465}$

x = 2,36

8. Rasio simplisia dan pelarut 1:30 dengan waktu ekstraksi 15 menit

   $y = 1465x + 1278$

   $3478,2 = 1465x + 1278$

   $x = \frac{2200}{1465}$

   $x = 1,50$

9. Rasio simplisia dan pelarut 1:30 dengan waktu ekstraksi 45 menit

   $y = 1465x + 1278$

   $4370,9 = 1465x + 1278$

   $x = \frac{3092}{1465}$

   $x = 2,11$

10. Rasio simplisia dan pelarut 1:34 dengan waktu ekstraksi 30 menit

    $y = 1465x + 1278$

    $2459,3 = 1465x + 1278$

    $x = \frac{1181}{1465}$

    $x = 0,80$

11. Rasio simplisia dan pelarut 1:30 dengan waktu ekstraksi 30 menit

    $y = 1465x + 1278$

    $2298,4 = 1465x + 1278$

    $x = \frac{1020}{1465}$

    $x = 0,69$

12. Rasio simplisia dan pelarut 1:30 dengan waktu ekstraksi 30 menit

    $y = 1465x + 1278$

    $3535,3 = 1465x + 1278$

    $x = \frac{2257}{1465}$

    $x = 1,54$

13. Rasio simplisia dan pelarut 1:30 dengan waktu ekstraksi 30 menit

    $y = 1465x + 1278$

    $3634,2 = 1465x + 1278$

$$x = \frac{2356.2}{1.465}$$

$$x = 1{,}60$$