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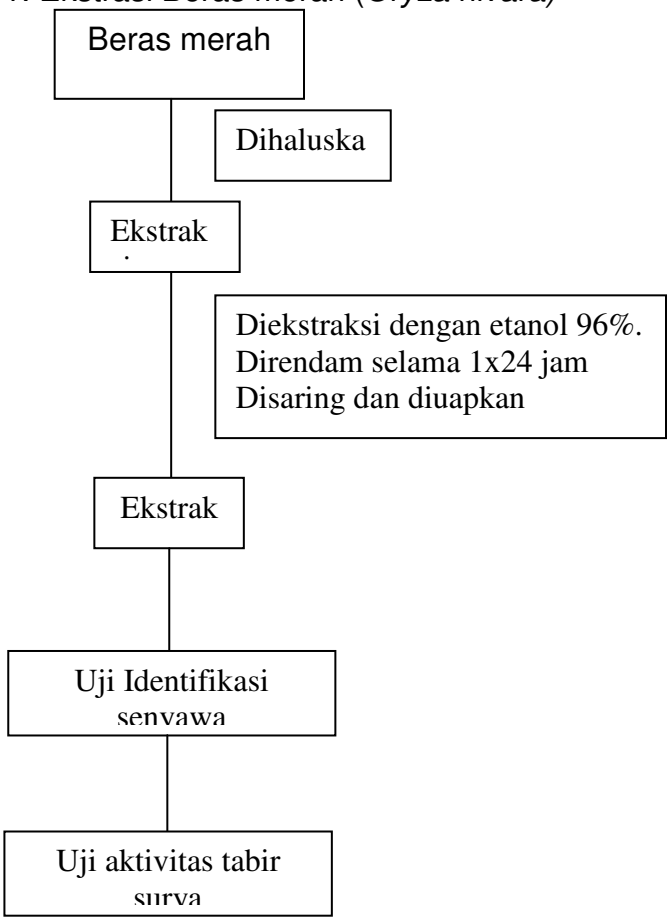
LAMPIRAN

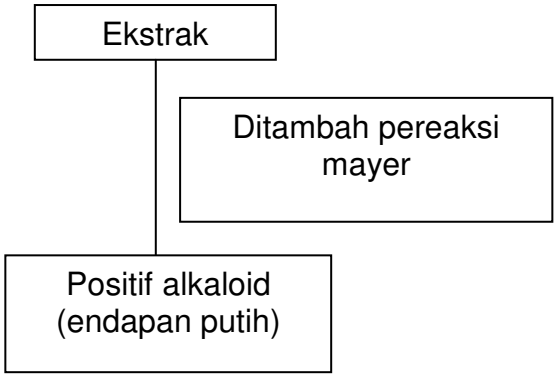
Lampiran 1. Skema Kerja Penelitian

1. Ekstrasi Beras merah (*Oryza nivara)*

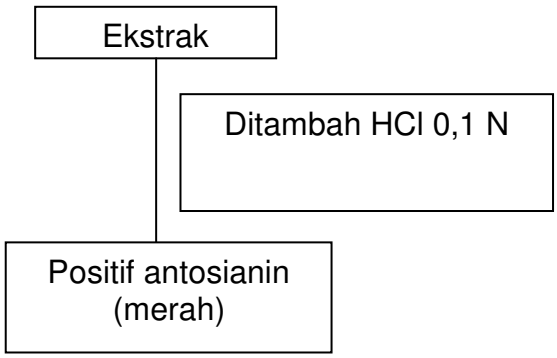


2. Uji Identifikasi Senyawa

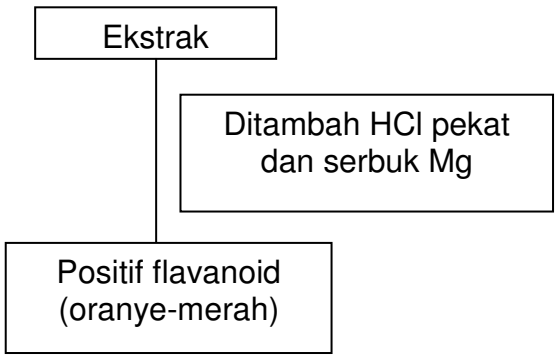
a. Uji Alkaloid



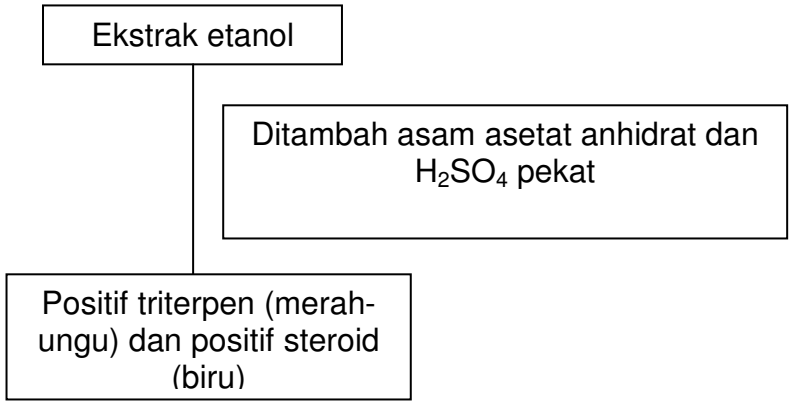
b. Uji Antosianin



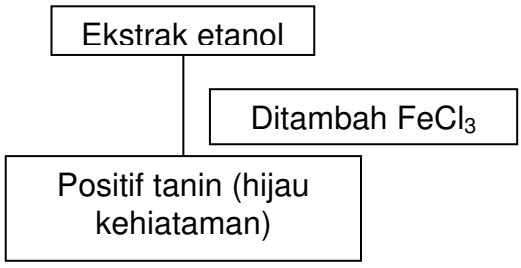
c. Uji Flavanoid



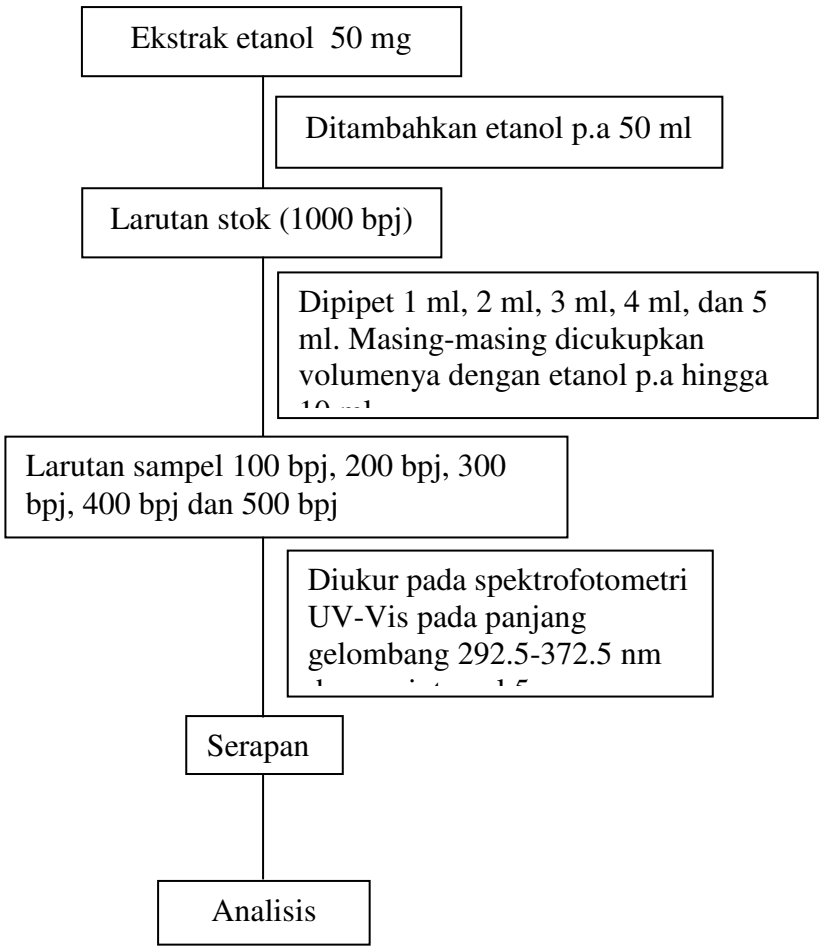
d. Uji Steroid



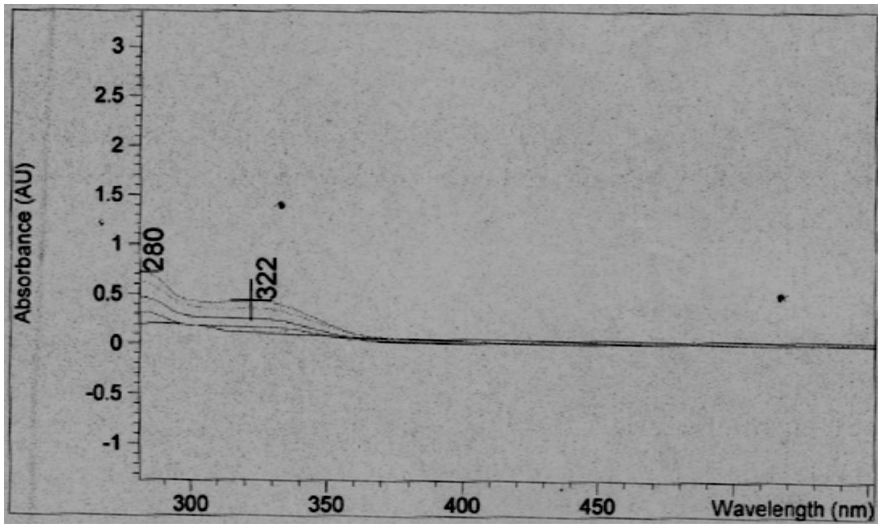
e. Uji Tanin



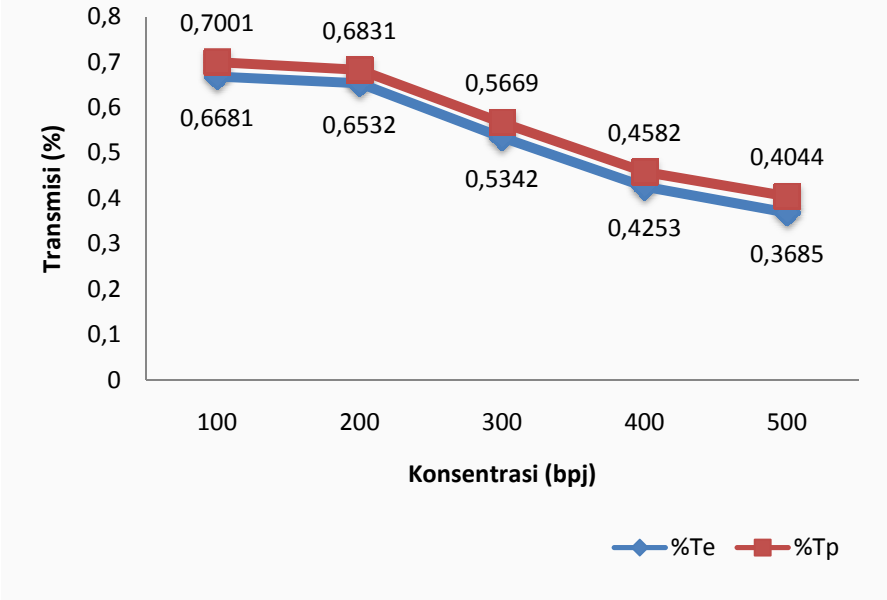
3. Uji Aktivitas Tabir Surya



Lampiran 2. Kurva Serapan Ekstrak Beras Merah (*Oryza nivara*)



Lampiran 3. Kurva Hubungan antara %Te dan %Tp terhadap konsentrasi (bpj)



Lampiran 4. Nilai Faktor efektivitas/fluks eritema dan pigmentasi pada panjang gelombang tertentu

λ(nm)	Energi eritema (Fe) setara dengan 296,7 ($\mu W/cm^2$)	Energi pigmentasi(Fp) setara dengan 296,7 ($\mu W/cm^2$)
292,5	1,1390	1,1050
297,5	6,5100	6,7200
302,5	10,000	10,0000
307,5	3,5770	2,0075
312,5	0,9730	1,3460
317,5	0,567	1,1250
322,5	0,4550	1,0790
327,5	0,2890	1,0200
332,5	0,1290	0,9360
337,5	0,0456	0,7980
342,5		0,6690
347,5		0,5700
352,5		0,4880
357,5		0,4560
362,5		0,3560
367,5		0,3100
372,5		0,2600
Total	23,685	29,2635

Lampiran 5. Data serapan (A) Ekstrak beras merah (*Oryza nivara*) pada panjang gelombang (λ) 292,5-337,5 nm dengan Spektrofometer UV-Vis

λ (nm)	Serapan (A)				
	100 bpj	**200 bpj**	**300 bpj**	**400 bpj**	**500 bpj**
292,5	0,20176	0,22714	0,33566	0,44750	0,52249
297,5	0,19342	0,19331	0,28502	0,38453	0,44809
302,5	0,18148	0,18191	0,26741	0,36433	0,42426
307,5	0,15846	0,17623	0,25829	0,35617	0,41626
312,5	0,13049	0,17417	0,2552	0,35638	0,41990
317,5	0,11738	0,17578	0,25641	0,36122	0,42986
322,5	0,11196	0,17616	0,25606	0,36242	0,43456
327,5	0,10719	0,17147	0,24868	0,35311	0,42463
332,5	0,10147	0,16022	0,23163	0,33095	0,39732
337,5	0,09486	0,14285	0,20522	0,29699	0,35390
342,5	0,08767	0,12099	0,17262	0,25402	0,29787
347,5	0,08047	0,09673	0,13687	0,20644	0,23562
352,5	0,07364	0,07334	0,10244	0,16061	0,17585
357,5	0,06790	0,05398	0,07389	0,12208	0,12579
362,5	0,06285	0,03919	0,05213	0,09316	0,08864
367,5	0,05876	0,02884	0,03691	0,07255	0,06277
372,5	0,05571	0,02217	0,02724	0,05955	0,04669

Lampiran 6 Nilai Transmitan (T) Ekstrak beras merah (*Oryza nivara*) pada panjang gelombang (λ) 292,5-337,5 nm dengan Spektrofometer UV-Vis

λ (nm)	Transmitan (T)				
	100 bpj	200 bpj	300 bpj	400 bpj	500 bpj
292,5	0,62841	0,59273	0,46168	0,35686	0,30027
297,5	0,64059	0,64075	0,51878	0,41254	0,35638
302,5	0,65845	0,65779	0,54024	0,43219	0,37648
307,5	0,69429	0,66645	0,55171	0,44038	0,38348
312,5	0,74047	0,66962	0,55565	0,44017	0,38028
317,5	0,76317	0,66656	0,55410	0,43529	0,37166
322,5	0,77275	0,67380	0,55455	0,43409	0,36765
327,5	0,78129	0,69148	0,56405	0,44350	0,37616
332,5	0,79164	0,71970	0,58664	0,46671	0,40057
337,5	0,80379	0,75685	0,62342	0,50467	0,44269
342,5	0,81720	0,80033	0,67202	0,55716	0,50365
347,5	0,83086	0,84462	0,72968	0,62167	0,58127
352,5	0,84403	0,88312	0,78988	0,69086	0,66704
357,5	0,85526	0,91371	0,84355	0,75495	0,74853
362,5	0,86527	0,93575	0,88689	0,80694	0,81538
367,5	0,87345	0,95023	0,91852	0,84616	0,86543
372,5	0,87961	0,95023	0,93920	0,87187	0,89807

Lampiran 7. Perhitungan Persentase Transmisi Eritema dan Pigmentasi

a. Persentase Transmisi Eritema

- Rumus : Te = T x Fe

  Keterangan:

  Te : transmisi eritema

  T : transmitan

  Fe : faktor efektivitas eritema / fluks eritema yang nilainya pada panjang gelombang tertentu (lampiran_)

- Rumus : Ee = Σ (T x Fe)

  Keterangan:

  Ee : banyaknya fluks eritema yang diteruskan oleh tabir surya

- Rumus : %Te = Σ Ee/ Fe = Σ (T x Fe)/ Σ Fe

b. Persentase Transmisi Pigmentasi

- Rumus : Tp = T x Fp

  Keterangan:

  Tp : transmisi pigmentasi

  T : transmitan

  Fp : faktor efektivitas pigmentasi / fluks pigmentasi yang nilainya pada panjang gelombang tertentu (lampiran_)

- Rumus : Ee = Σ (T x Fe)

  Keterangan:

  Ee : banyaknya fluks pigmentasi yang diteruskan oleh tabir surya

- Rumus : %Tp = Σ Ep/ Fp = Σ (T x Fp)/ Σ Fp

Konsentrasi 100 bpj

a. Dik : λ = 292,5 nm

T = 0,62841

Te = T x Fe = 0,62841 x 1,1390 = 0,7158

Tp = T x Fp = 0,62841 x 1,1050 = 0,6944

b. Dik : λ = 297,5 nm

T = 0,64059

Te = T x Fe = 0,64059 x 6,5100 = 4,170

Tp = T x Fp = 0,64059 x 6,7200 = 4,3048

c. Dik : λ = 302,5 nm

T = 0,65845

Te = T x Fe = 0,65845 x 10,000 = 6,5845

Tp = T x Fp = 0,65845 x 10,000 = 6,5845

d. Dik : λ = 307,5 nm

T = 0,69429

Te = T x Fe = 0,69429 x 3,5770 = 2,4835

Tp = T x Fp = 0,69429 x 2,0075 = 1,3938

e. Dik : λ = 312,5 nm

T = 0,74047

Te = T x Fe = 0,74047 x 0,9730 = 0,7205

Tp = T x Fp = 0,74047 x 1,3460 = 0,9967

f. Dik : λ = 317,5 nm

T = 0,76317

Te = T x Fe = 0,76317 x 0,567 = 0,4327

Tp = T x Fp = 0,76317 x 1,1250 = 0,8586

g. Dik : λ = 322,5 nm

T = 0,77275

Te = T x Fe = 0,77275 x 0,4550 = 0,3516

Tp = T x Fp = 0,77275 x 1,0790 = 0,8338

h. Dik : λ = 327,5 nm

T = 0,78129

Te = T x Fe = 0,78129 x 0,2890 = 0,2258

Tp = T x Fp = 0,78129 x 1,0200 = 0,7969

i. Dik : λ = 332,5 nm

T = 0,79164

Te = T x Fe = 0,79164 x 0,1290 = 0,1021

Tp = T x Fp = 0,79164 x 0,9360 = 0,7410

j. Dik : λ = 337,5 nm

T = 0,80379

Te = T x Fe = 0,80379 x 0,0456 = 0,0367

Tp = T x Fp = 0,80379 x 0,7980 = 0,6414

k. Dik : λ = 342,5 nm

T = 0,81720

Tp = T x Fp = 0,81720 x 0,6690 = 0,5467

l. Dik : λ = 347,5 nm

T = 0,83086

Tp = T x Fp = 0,83086 x 0,5700 = 0,4736

m. Dik : λ = 352,5 nm

T = 0,84403

Tp = T x Fp = 0,84403 x 0,4880 = 0,4119

n. Dik : λ = 357,5 nm

T = 0,85526

Tp = T x Fp = 0,85526 x 0,4560 = 0,3900

o. Dik : λ = 362,5 nm

T = 0,86527

Tp = T x Fp = 0,86527 x 0,3560 = 0,3080

p. Dik : λ = 367,5 nm

T = 0,87345

Tp = T x Fp = 0,87345 x 0,3100 = 0,2708

q. Dik : λ = 372,5 nm

T = 0,87961

Tp = T x Fp = 0,87961 x 0,2600 = 0,2287

Ee = Σ (TxFe)

= 0,7158 + 4,170 + 6,5845 + 2,4835 + 0,7205 + 0,4327 + 0,3516 + 0,2258 + 0,1021+0,0367

= 15,8233

ΣFe = 1,1390 + 6,5100 + 10,000 + 3,5770 + 0,9730 + 0,567 + 0,4550 + 0,2890 + 0,1290 + 0,0456

= 23,6846

% Te = Σ Ee/ Fe

= 15,8233 / 23,6846

= 0,6681

Ep = Σ (TxFp)

= 0,6944 + 4,3048 + 6,5845 + 1,3938 + 0,9967 + 0,8586 + 0,8338 + 0,7969 + 0,7410 + 0,6414 + 0,5467 + 0,4736 + 0,4119 + 0,3900 + 0,3080 + 0,2708 + 0,2287

= 20,4754

ΣFp = 1,1050 + 6,7200 + 10,000 + 2,0075 + 1,3460 + 1,1250 + 1,0790 + 1,0200 + 0,9360 + 0,7980 + 0,6690 + 0,5700 + 0,4880 + 0,4560 + 0,3560 + 0,3100 + 0,2600

= 29,2455

% Tp = Σ Ep/ Fp

= 20,4754 / 29,2455

= 0,7001

Konsentrasi 200 bpj

a. Dik : λ = 292,5 nm

T = 0,59273

Te = T x Fe = 0,59273 x 1,1390 = 0,6751

Tp = T x Fp = 0,59273 x 1,1050 = 0,6550

b. Dik : λ = 297,5 nm

T =0,64075

Te = T x Fe = 0,64075 x 6,5100 = 4,1713

Tp = T x Fp = 0,64075 x 6,7200 = 4,3059

c. Dik : λ = 302,5 nm

T = 0,65779

Te = T x Fe = 0,65779 x 10,000 = 6,5779

Tp = T x Fp = 0,65779 x 10,000 = 6,5779

d. Dik : λ = 307,5 nm

T = 0,66645

Te = T x Fe = 0,66645 x 3,5770 = 2,3839

Tp = T x Fp = 0,66645 x 2,0075 = 1,3379

e. Dik : λ = 312,5 nm

T = 0,66962

Te = T x Fe = 0,66962 x 0,9730 = 0,6515

Tp = T x Fp = 0,66962 x 1,3460 = 0,9013

f. Dik : λ = 317,5 nm

T = 0,66656

Te = T x Fe = 0,66656 x 0,567 = 0,3779

Tp = T x Fp = 0,66656 x 1,1250 = 0,7499

g. Dik : λ = 322,5 nm

T = 0,67380

Te = T x Fe = 0,67380 x 0,4550 = 0,3066

Tp = T x Fp = 0,67380 x 1,0790 = 0,7270

h. Dik : λ = 327,5 nm

T = 0,69148

Te = T x Fe = 0,69148 x 0,2890 = 0,1998

Tp = T x Fp = 0,69148 x 1,0200 = 0,7053

i. Dik : λ = 332,5 nm

T = 0,71970

Te = T x Fe = 0,71970 x 0,1290 = 0,0928

Tp = T x Fp = 0,71970 x 0,9360 = 0,6736

j. Dik : λ = 337,5 nm

T = 0,75685

Te = T x Fe = 0,75685 x 0,0456 = 0,0345

Tp = T x Fp = 0,75685 x 0,7980 = 0,6040

k. Dik : λ = 342,5 nm

T = 0,80033

Tp = T x Fp = 0,80033 x 0,6690 = 0,5354

l. Dik : λ = 347,5 nm

T = 0,84462

Tp = T x Fp = 0,84462 x 0,5700 = 0,4814

m. Dik : λ = 352,5 nm

T = 0,88312

Tp = T x Fp = 0,88312 x 0,4880 = 0,4310

n. Dik : λ = 357,5 nm

T = 0,91371

Tp = T x Fp = 0,91371 x 0,4560 = 0,4167

o. Dik : λ = 362,5 nm

T = 0,93575

Tp = T x Fp = 0,93575 x 0,3560 = 0,3331

p. Dik : λ = 367,5 nm

T = 0,95023

Tp = T x Fp = 0,95023 x 0,3100 = 0,2946

q. Dik : λ = 372,5 nm

T = 0,95023

Tp = T x Fp = 0,95023 x 0,2600 = 0,2471

Ee = Σ (TxFe)

= 0,6751 + 4,1713 + 6,5779 + 2,3839 + 0,6515 + 0,3779 + 0,3066 + 0,1998 + 0,0928 + 0,0345

= 15,4715

ΣFe = 1,1390 + 6,5100 + 10,000 + 3,5770 + 0,9730 + 0,567 + 0,4550 + 0,2890 + 0,1290 + 0,0456

= 23,6846

% Te = Σ Ee/ Fe

= 15,4715 / 23,6846

= 0,6532

Ep = Σ (TxFp)

= 0,6550 + 4,3059 + 6,5779 + 1,3379 + 0,9013 + 0,7499 + 0,7270 + 0,7053 + 0,6736 + 0,6040 + 0,5354 + 0,4814 + 0,4310 + 0,4167 + 0,3331 + 0,2946 + 0,2471

= 19,9770

ΣFp = 1,1050 + 6,7200 + 10,000 + 2,0075 + 1,3460 + 1,1250 + 1,0790 + 1,0200 + 0,9360 + 0,7980 + 0,6690 + 0,5700 + 0,4880 + 0,4560 + 0,3560 + 0,3100 + 0,2600

= 29,2455

% Tp = Σ Ep/ Fp

= 19,9770 / 29,2455

= 0,6831

Konsentrasi 300 bpj

a. Dik : λ = 292,5 nm

T = 0,46168

Te = T x Fe = 0,46168 x 1,1390 = 0,5259

Tp = T x Fp = 0,46168 x 1,1050 = 0,5102

b. Dik : λ = 297,5 nm

T = 0,51878

Te = T x Fe = 0,51878 x 6,5100 = 3,3772

Tp = T x Fp = 0,51878 x 6,7200 = 3,4862

c. Dik : λ = 302,5 nm

T = 0,54024

Te = T x Fe = 0,54024 x 10,000 = 5,4024

Tp = T x Fp = 0,54024 x 10,000 = 5,4024

d. Dik : λ = 307,5 nm

T = 0,55171

Te = T x Fe = 0,55171 x 3,5770 = 1,9735

Tp = T x Fp = 0,55171 x 2,0075 = 1,1076

e. Dik : λ = 312,5 nm

T = 0,55565

Te = T x Fe = 0,55565 x 0,9730 = 0,5406

Tp = T x Fp = 0,55565 x 1,3460 = 0,7479

f. Dik : λ = 317,5 nm

T = 0,55410

Te = T x Fe = 0,55410 x 0,567 = 0,3142

Tp = T x Fp = 0,55410 x 1,1250 = 0,6234

g. Dik : λ = 322,5 nm

T = 0,55455

Te = T x Fe = 0,55455 x 0,4550 = 0,2523

Tp = T x Fp = 0,55455 x 1,0790 = 0,5984

h. Dik : λ = 327,5 nm

T = 0,56405

Te = T x Fe = 0,56405 x 0,2890 = 0,1630

Tp = T x Fp = 0,56405 x 1,0200 = 0,5753

i. Dik : λ = 332,5 nm

T = 0,58664

Te = T x Fe = 0,58664 x 0,1290 = 0,0757

Tp = T x Fp = 0,58664 x 0,9360 = 0,5491

j. Dik : λ = 337,5 nm

T = 0,62342

Te = T x Fe = 0,62342 x 0,0456 = 0,0284

Tp = T x Fp = 0,62342 x 0,7980 = 0,4975

k. Dik : λ = 342,5 nm

T = 0,67202

Tp = T x Fp = 0,67202 x 0,6690 = 0,4496

l. Dik : λ = 347,5 nm

T = 0,72968

Tp = T x Fp = 0,72968 x 0,5700 = 0,4159

m. Dik : λ = 352,5 nm

T = 0,78988

Tp = T x Fp = 0,78988 x 0,4880 = 0,3855

n. Dik : λ = 357,5 nm

T = 0,84355

Tp = T x Fp = 0,84355 x 0,4560 = 0,3847

o. Dik : λ = 362,5 nm

T = 0,88689

Tp = T x Fp = 0,88689 x 0,3560 = 0,3157

p. Dik : λ = 367,5 nm

T = 0,91852

Tp = T x Fp = 0,91852 x 0,3100 = 0,2847

q. Dik : λ = 372,5 nm

T = 0,93920

Tp = T x Fp = 0,93920 x 0,2600 = 0,2442

Ee = Σ (TxFe)

= 0,5259 + 3,3772 + 5,4024 + 1,9735 + 0,5406 + 0,3142 + 0,2523 + 0,1630 + 0,0757 + 0,0284

= 12,653

ΣFe = 1,1390 + 6,5100 + 10,000 + 3,5770 + 0,9730 + 0,567 + 0,4550 + 0,2890 + 0,1290 + 0,0456

= 23,6846

% Te = Σ Ee/ Fe

= 12,653 / 23,6846

= 0,5342

Ep = Σ (TxFp)

= 0,5102 + 3,4862 + 5,4024 + 1,1076 + 0,7479 + 0,6234 + 0,5984 + 0,5753 + 0,5491 + 0,4975 + 0,4496 + 0,4159 + 0,3855 + 0,3847 + 0,3157 + 0,2847 + 0,2442

= 16,5781

ΣFp = 1,1050 + 6,7200 + 10,000 + 2,0075 + 1,3460 + 1,1250 + 1,0790 + 1,0200 + 0,9360 + 0,7980 + 0,6690 + 0,5700 + 0,4880 + 0,4560 + 0,3560 + 0,3100 + 0,2600

= 29,2455

% Tp = Σ Ep/ Fp

= 16,5781 / 29,2455

= 0,5669

Konsentrasi 400 bpj

a. Dik : λ = 292,5 nm

T = 0,35686

Te = T x Fe = 0,35686 x 1,1390 = 0,4065

Tp = T x Fp = 0,35686 x 1,1050 = 0,3943

b. Dik : λ = 297,5 nm

T = 0,41254

Te = T x Fe = 0,41254 x 6,5100 = 2,6857

Tp = T x Fp = 0,41254 x 6,7200 = 2,7723

c. Dik : λ = 302,5 nm

T = 0,43219

Te = T x Fe = 0,43219 x 10,000 = 4,3219

Tp = T x Fp = 0,43219 x 10,000 = 4,3219

d. Dik : λ = 307,5 nm

T = 0,44038

Te = T x Fe = 0,44038 x 3,5770 = 1,5753

Tp = T x Fp = 0,44038 x 2,0075 = 0,8841

e. Dik : λ = 312,5 nm

T = 0,44017

Te = T x Fe = 0,44017 x 0,9730 = 0,4283

Tp = T x Fp = 0,44017 x 1,3460 = 0,5925

f. Dik : λ = 317,5 nm

T = 0,43529

Te = T x Fe = 0,43529 x 0,567 = 0,2468

Tp = T x Fp = 0,43529 x 1,1250 = 0,4897

g. Dik : λ = 322,5 nm

T = 0,43409

Te = T x Fe = 0,43409 x 0,4550 = 0,1975

Tp = T x Fp = 0,43409 x 1,0790 = 0,4684

h. Dik : λ = 327,5 nm

T = 0,44350

Te = T x Fe = 0,44350 x 0,2890 = 0,1282

Tp = T x Fp = 0,44350 x 1,0200 = 0,4524

i. Dik : λ = 332,5 nm

T = 0,46671

Te = T x Fe = 0,46671 x 0,1290 = 0,0602

Tp = T x Fp = 0,46671 x 0,9360 = 0,4369

j. Dik : λ = 337,5 nm

T = 0,50467

Te = T x Fe = 0,50467 x 0,0456 = 0,0230

Tp = T x Fp = 0,50467 x 0,7980 = 0,4027

k. Dik : λ = 342,5 nm

T = 0,55716

Tp = T x Fp = 0,55716 x 0,6690 = 0,3727

l. Dik : λ = 347,5 nm

T = 0,62167

Tp = T x Fp = 0,62167 x 0,5700 = 0,3544

m. Dik : λ = 352,5 nm

T = 0,69086

Tp = T x Fp = 0,69086 x 0,4880 = 0,3371

n. Dik : λ = 357,5 nm

T = 0,75495

Tp = T x Fp = 0,75495 x 0,4560 = 0,3443

o. Dik : λ = 362,5 nm

T = 0,80694

Tp = T x Fp = 0,80694 x 0,3560 = 0,2873

p. Dik : λ = 367,5 nm

T = 0,84616

Tp = T x Fp = 0,84616 x 0,3100 = 0,2623

q. Dik : λ = 372,5 nm

T = 0,87187

Tp = T x Fp = 0,87187 x 0,2600 = 0,2267

Ee = Σ (TxFe)

= 0,4065 + 2,6857 + 4,3219 + 1,5753 + 0,4283 + 0,2468 + 0,1975 + 0,1282 + 0,0602 + 0,0230

= 10,0732

ΣFe = 1,1390 + 6,5100 + 10,000 + 3,5770 + 0,9730 + 0,567 + 0,4550 + 0,2890 + 0,1290 + 0,0456

= 23,6846

% Te = Σ Ee/ Fe

= 10,0732 / 23,6846

= 0,4253

Ep = Σ (TxFp)

= 0,3943 + 2,7723 + 4,3219 + 0,8841 + 0,5925 + 0,4897 + 0,4684 + 0,4524 + 0,4369 + 0,4027 + 0,3727 + 0,3544 + 0,3371 + 0,3443 + 0,2873 + 0,2623 + 0,2267

= 13,3998

ΣFp = 1,1050 + 6,7200 + 10,000 + 2,0075 + 1,3460 + 1,1250 + 1,0790 + 1,0200 + 0,9360 + 0,7980 + 0,6690 + 0,5700 + 0,4880 + 0,4560 + 0,3560 + 0,3100 + 0,2600

= 29,2455

% Tp = Σ Ep/ Fp

= 13,3998 / 29,2455

= 0,4582

Konsentrasi 500 bpj

a. Dik : λ = 292,5 nm

T = 0,30027

Te = T x Fe = 0,30027 x 1,1390 = 0,3420

Tp = T x Fp = 0,30027 x 1,1050 = 0,3318

b. Dik : λ = 297,5 nm

T = 0,35638

Te = T x Fe = 0,35638 x 6,5100 = 2,3200

Tp = T x Fp = 0,35638 x 6,7200 = 2,3949

c. Dik : λ = 302,5 nm

T = 0,37648

Te = T x Fe = 0,37648 x 10,000 = 3,7648

Tp = T x Fp = 0,37648 x 10,000 = 3,7648

d. Dik : λ = 307,5 nm

T = 0,38348

Te = T x Fe = 0,38348 x 3,5770 = 1,3717

Tp = T x Fp = 0,38348 x 2,0075 = 0,7698

e. Dik : λ = 312,5 nm

T = 0,38028

Te = T x Fe = 0,38028 x 0,9730 = 0,3700

Tp = T x Fp = 0,38028 x 1,3460 = 0,5119

f. Dik : λ = 317,5 nm

T = 0,37166

Te = T x Fe = 0,37166 x 0,567 = 0,2107

Tp = T x Fp = 0,37166 x 1,1250 = 0,4181

g. Dik : λ = 322,5 nm

T = 0,36765

Te = T x Fe = 0,36765 x 0,4550 = 0,1673

Tp = T x Fp = 0,36765 x 1,0790 = 0,3967

h. Dik : λ = 327,5 nm

T = 0,37616

Te = T x Fe = 0,37616 x 0,2890 = 0,1087

Tp = T x Fp = 0,37616 x 1,0200 = 0,3837

i. Dik : λ = 332,5 nm

T = 0,40057

Te = T x Fe = 0,40057 x 0,1290 = 0,0517

Tp = T x Fp = 0,40057 x 0,9360 = 0,3749

j. Dik : λ = 337,5 nm

T = 0,44269

Te = T x Fe = 0,44269 x 0,0456 = 0,0202

Tp = T x Fp = 0,44269 x 0,7980 = 0,3533

k. Dik : λ = 342,5 nm

T = 0,50365

Tp = T x Fp = 0,50365 x 0,6690 = 0,3369

l. Dik : λ = 347,5 nm

T = 0,58127

Tp = T x Fp = 0,58127 x 0,5700 = 0,3313

m. Dik : λ = 352,5 nm

T = 0,66704

Tp = T x Fp = 0,66704 x 0,4880 = 0,3255

n. Dik : λ = 357,5 nm

T = 0,74853

Tp = T x Fp = 0,74853 x 0,4560 = 0,3413

o. Dik : λ = 362,5 nm

T = 0,81538

Tp = T x Fp = 0,81538 x 0,3560 = 0,2903

p. Dik : λ = 367,5 nm

T = 0,86543

Tp = T x Fp = 0,86543 x 0,3100 = 0,2683

q. Dik : λ = 372,5 nm

T = 0,89807

Tp = T x Fp = 0,89807 x 0,2600 = 0,2335

Ee = Σ (TxFe)

= 0,3420 + 2,3200 + 3,7648 + 1,3717 + 0,3700 + 0,2107 + 0,1673 + 0,1087 + 0,0517 + 0,0202

= 8,7271

ΣFe = 1,1390 + 6,5100 + 10,000 + 3,5770 + 0,9730 + 0,567 + 0,4550 + 0,2890 + 0,1290 + 0,0456

= 23,6846

% Te = Σ Ee/ Fe

= 8,7271 / 23,6846

= 0,3685

Ep = Σ (TxFp)

= 0,3318 + 2,3949 + 3,7648 + 0,7698 + 0,5119 + 0,4181 + 0,3967 + 0,3837 + 0,3749 + 0,3533 + 0,3369 + 0,3313 + 0,3255 + 0,3413 + 0,2903 + 0,2683 + 0,2335

= 11,8270

ΣFp = 1,1050 + 6,7200 + 10,000 + 2,0075 + 1,3460 + 1,1250 + 1,0790 + 1,0200 + 0,9360 + 0,7980 + 0,6690 + 0,5700 + 0,4880 + 0,4560 + 0,3560 + 0,3100 + 0,2600

= 29,2455

% Tp = Σ Ep/ Fp

= 11,8270 / 29,2455

= 0,4044

Lampiran 5. Gambar Beras Merah dan Ekstrak Beras Merah

Lampiran 9. Gambar Identifikasi Golongan Senyawa

Uji Alkaloid

Uji Antosianin

Uji Flavanoid

Uji Tanin

Uji triterpen