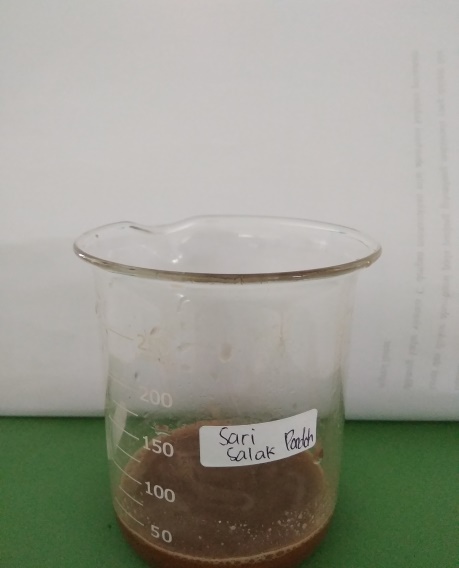
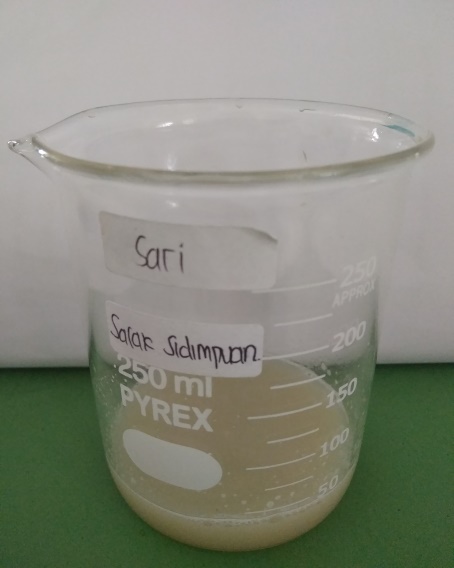
**Lampiran 1.** Gambar Sampel Salak Pondoh, Salak Padang Sidempuan, Salak Gula Pasir

|  |  |
| --- | --- |
|  |  |

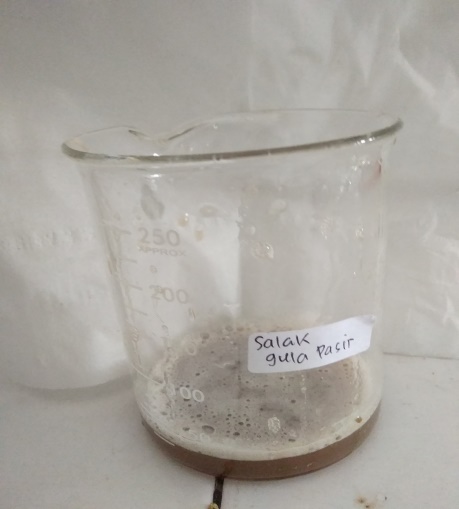
MPIRAN

Salak pondoh Salak padang sidempuan Salak gula pasir

**Lampiran 2.** Gambar Sari Salak Pondoh, Salak Padang Sidempuan, Salak Gula Pasir

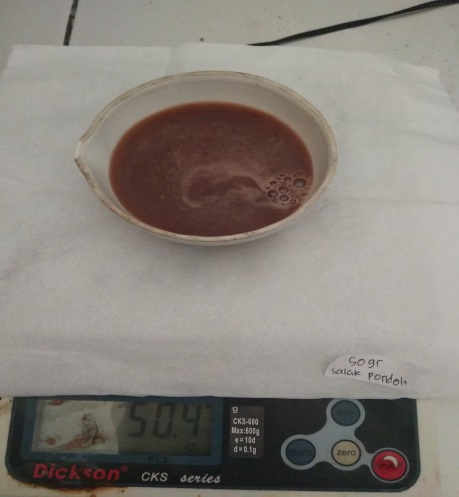
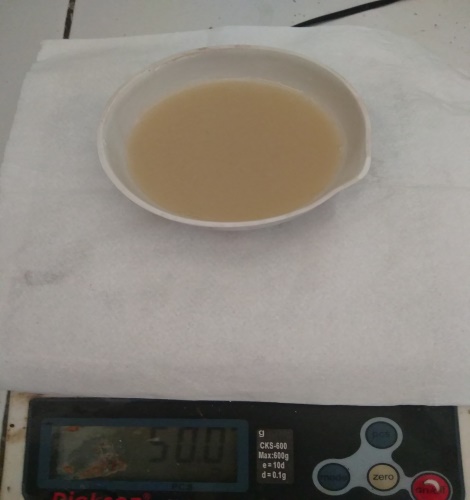
** **

Gambar 1. Sari salak pondoh Gambar 2. Sari salak padang sidempuan

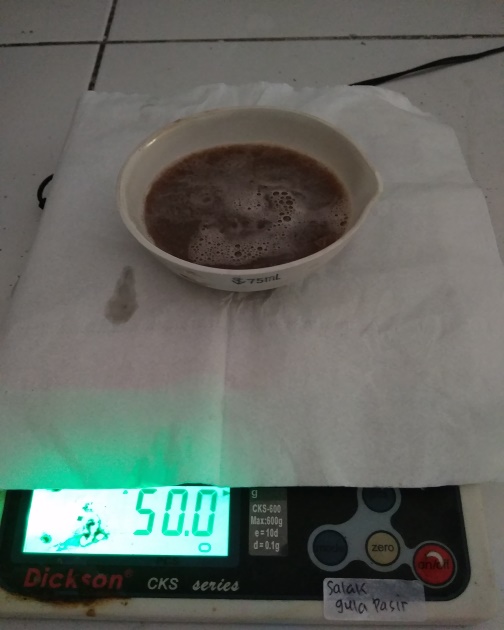


Gambar 2. Sari salak gula pasir

**Lampiran 3.** Gambar penimbangan sari salak pondoh, salak padang sidempuan, sari salak gula pasir

Gambar 1. Sari salak pondoh Gambar 2. Sari salak padang sidempuan



Gambar 3. Sari salak gula pasir

**Lampiran 4.** Gambar Pembuatan Larutan Sampel



Gambar 1. Hasil pengenceran sari salak pondoh



Gambar 2. Hasil pengenceran sari salak padang sidempuan

**Lampiran 4.** Lanjutan



Gambar 3. Hasil pengenceran sari salak gula pasir

**Lampiran 5.** Gambar Alat



Gambar 1. Spektrofotometer UV-Visible



Gambar 2. Kuvet

**Lampiran 6.** Bagan Alir Pembuatan Larutan Induk

Ditimbang 50 mg Asam Askorbat

Dilarutkan dalam labu tentukur dengan aq hingga 50 ml

Dipipet 2,5 ml (aq ad 50 ml)

Penentuan panjang gelombang maksimum

(5 µg/ml)

Dipipet 3 ml, ad aq 50 ml (6 µg/ml)

Dipipet 3,5 ml, ad aq 50 ml (7 µg/ml)

Dipipet 2,5 ml, ad aq 50 ml (5 µg/ml)

Dipipet 2 ml, ad aq 50 ml (4 µg/ml)

Dipipet 1,5 ml, ad aq 50 ml (3 µg/ml)

Kurva Kalibrasi

LIB II

(100 µg/ml)

LIB I

(C=1000 µg/ml)

**Lampiran 7.** Bagan Alir Penentuan Kadar Sampel

Sampel

(Salak pondoh, salak padang sidempuan, salak gula pasir)

* Diblender sampai halus
* Diambil sarinya
* Ditimbang 50 g
* Dimasukkan ke dalam labu tentukur 100 ml

Kemudian dicukupkan sampai batas tanda dengan pelarut aquadest

* Disaring menggunakan kertas saring
* Dipipet 3 ml
* Dimasukkan kedalam labu tentukur 10 ml,
* Dipipet 2,5 ml
* Dimasukkan kedalam labu tentukur 10 ml
* cukupkan dengan aquadest hingga tanda batas
* Dimasukkan sampel kedalam kuvet
* Di ukur serapannya

Hasil Serapan

Perlakuan dilakukan sebanyak 6 kali pada setiap sampel

**Lampiran 8.** Kurva Kadar Sampel

|  |  |  |
| --- | --- | --- |
| No | **Sampel** | **Kadar rata – rata**  mg/100 gram |
| 1 | Salak pondoh | 10,3616 |
| 2 | Salak padang sidempuan | 3,6783 |
| 3 | Salak gula pasir | 8,94 |

**Lampiran 9.** Data Perhitungan Persamaan Regresi dan Koefisien Korelasi Vitamin C

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Konsentrasi (µg/mL)  (X) | Serapan  (Y) | XY | X2 | Y2 |
| 1 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 2 | 3,00 | 0,294 | 0,882 | 9 | 0,0864 |
| 3 | 4,00 | 0,384 | 1,536 | 16 | 0,1475 |
| 4 | 5,00 | 0,481 | 2,405 | 25 | 0,2314 |
| 5 | 6,00 | 0,584 | 3,504 | 36 | 0,3411 |
| 6 | 7,00 | 0,699 | 4,893 | 49 | 0,4886 |
| ƩX= 25 | | ƩY= 2,442 | ƩXY= 13,220 | ƩX2= 135 | ƩY2=1,2949 |
| X rata-rata = 4,167 | | Y rata-rata= 0,407 | XY rata-rata= 2,2033 | X2 rata-rata=22,5 | Y2rata-rata =0,2158 |

1. **Persamaan Regresi**

Y=aX+b

a= = = = 0,0988

b = (Yrata-rata)-(a)(Xrata-rata)

= 0,407-0,0988(4,167)

= 0,0047

Persamaan Regresi

Y=aX+b

Y=0,0988X+0,0047

1. **Koefisien Korelasi**

r =

r =

r =

r =

r = 1

**Lampiran 10.** Data Perhitungan Konsentrasi dan Kadar dan Kadar sebenarnya Salak Pondoh

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No | Berat Sampel  (g) | Serapan (Y) | Konsentrasi (X) | Volume Labu (ml) | FP | Kadar yang diperoleh (mg/100 g) |
| 1 | 50 | 0,397 | 3,9706 | 100 | 13.32 | 10,57 |
| 2 | 50 | 0,396 | 3,9605 | 100 | 13,32 | 10,55 |
| 3 | 50 | 0,394 | 3,9403 | 100 | 13,32 | 10,49 |
| 4 | 50 | 0,381 | 3,8087 | 100 | 13,32 | 10,14 |
| 5 | 50 | 0,382 | 3,8188 | 100 | 13,32 | 10,17 |
| 6 | 50 | 0,385 | 3,8491 | 100 | 13,32 | 10,25 |

**Perhitungan**

1. **Konsentrasi Terukur**

Y=0,0988X+0,0047

Sampel 1

Y=0,0988X+0,0047

0,397 =0,0988X+0,0047

X=

X=3,9706 μg/ml

Sampel 2

Y=0,0988X+0,0047

0,396 =0,0988X+0,0047

X=

X=3,9605 μg/ml

**Lampiran 10.** Lanjutan

Sampel 3

Y=0,0988X+0,0047

0,394 =0,0988X+0,0047

X=

X=3,9403 μg/ml

Sampel 4

Y=0,0988X+0,0047

0,381 =0,0988X+0,0047

X=

X=3,8087 μg/ml

Sampel 5

Y=0,0988X+0,0047

0,382 =0,0988X+0,0047

X=

X=3,8188 μg/ml

Sampel 6

Y=0,0988X+0,0047

0,385 =0,0988X+0,0047

X=

X=3,8491 μg/ml

1. **Kadar**

Kadar =

Kadar =

=

=105,77 µg/mg = 0,1057 mg/g = 10,57 mg/100 g

**Lampiran 10.** Lanjutan

Kadar =

=

=105,50 µg/mg = 0,1055 mg/g = 10,55 mg/100 g

Kadar =

=

=104,96 µg/mg= 0,1049 mg/g = 10,49 mg/100 g

Kadar =

=

=101,46 µg/mg = 0,1014 mg/g = 10,14 mg/100 g

Kadar =

=

=101,73 µg/mg= 0,1017 mg/g = 10,17 mg/100 g

Kadar =

=

=102,54 µg/mg=0,1025 mg/g = 10,25 mg/100 g

**Lampiran 10.** Lanjutan

1. **Kadar Sebenarnya Vitamin C**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Kadar (X) | X-Xrata-rata | (X-Xrata-rata)2 |
| 1 | 10,57 | 0,2084 | 0,0434 |
| 2 | 10,55 | 0,1884 | 0,0354 |
| 3 | 10,49 | 0,1284 | 0,0164 |
| 4 | 10,14 | 0,2216 | 0,0491 |
| 5 | 10,17 | 0,1916 | 0,0367 |
| 6 | 10,25 | 0,1116 | 0,0124 |
| ƩX=62,17 | |  | Ʃ(X-Xrata-rata)2=0,1934 |
| Xrata-rata = 10,3616 | |  | (X-Xrata-rata)2=0,0322 |

SD= = = = 0,1964

Pada interval kepercayaan 99% dengan nilai α=0,01, dk=6-1= 5, dan diperoleh nilai = 4,0321.

thitung = |

thitung 1 = | = | = 2,6017

thitung 2 = | = | = 2,3520

thitung 3 = | = | = 1,6029

thitung 4 = | = | = 2,7665

**Lampiran 10.** Lanjutan

thitung 5 = | = | = 2,3920

thitung 6 = | = | = 1,3932

Semua data diterima karena t hitung < t tabel, maka kadar sebenarnya adalah:

µ= Xrata-rata ± |tα/2 ()|

µ= 10,3616 mg ± |9,925 (0,0801)|

µ= 10,3616± 0,3229 mg/100g

**Lampiran 11.** Data Perhitungan Konsentrasi dan Kadar dan Kadar Sebenarnya Salak Padang Sidempuan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No | Berat Sampel  (g) | Serapan (Y) | Konsentrasi (X) | Volume Labu (ml) | FP | Kadar yang diperoleh (mg/100 g) |
| 1 | 50 | 0,142 | 1,3897 | 100 | 13.32 | 3,7 |
| 2 | 50 | 0,140 | 1,3694 | 100 | 13,32 | 3,64 |
| 3 | 50 | 0,140 | 1,3694 | 100 | 13,32 | 3,64 |
| 4 | 50 | 0,143 | 1,3997 | 100 | 13,32 | 3,72 |
| 5 | 50 | 0,142 | 1,3897 | 100 | 13,32 | 3,7 |
| 6 | 50 | 0,141 | 1,3795 | 100 | 13,32 | 3,67 |

**Perhitungan**

1. **Konsentrasi Terukur**

Y=0,0988X+0,0047

Sampel 1

Y=0,0988X+0,0047

0,142=0,0988X+0,0047

X=

X=1,3897 μg/ml

Sampel 2

Y=0,0988X+0,0047

0,140 =0,0988X+0,0047

X=

X=1,3694 μg/ml

**Lampiran 11.** Lanjutan

Sampel 3

Y=0,0988X+0,0047

0,140 =0,0988X+0,0047

X=

X=1,3694 μg/ml

Sampel 4

Y=0,0988X+0,0047

0,143 =0,0988X+0,0047

X=

X=1,3997 μg/ml

Sampel 5

Y=0,0988X+0,0047

0,142 =0,0988X+0,0047

X=

X=1,3897 μg/ml

Sampel 6

Y=0,0988X+0,0047

0,141 =0,0988X+0,0047

X=

X=1,3795 μg/ml

**Lampiran 11.** Lanjutan

1. **Kadar**

Kadar =

Kadar =

=

=37,02 µg/mg= 0,0370 mg/g = 3,7 mg/100 g

Kadar =

=

=36,48 µg/mg= 0,0364 mg/g = 3,64 mg/100 g

Kadar =

=

=36,48 µg/mg=0,0364 mg/g = 3,64 mg/100 g

Kadar =

=

=37,28 µg/mg=0,0372 mg/g = 3,72 mg/100 g

Kadar =

=

=37,02 µg/mg=0,0370 mg/g = 3,7 mg/100 g

Kadar =

=

=36,74 µg/mg=0,0367 mg/g = 3,67 mg/100 g

**Lampiran 11.** Lanjutan

1. **Kadar Sebenarnya Vitamin C**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Kadar (X) | X-Xrata-rata | (X-Xrata-rata)2 |
| 1 | 3,7 | 0,0217 | 0,0004 |
| 2 | 3,64 | 0,0383 | 0,0014 |
| 3 | 3,64 | 0,0383 | 0,0014 |
| 4 | 3,72 | 0,0417 | 0,0017 |
| 5 | 3,7 | 0,0217 | 0,0004 |
| 6 | 3,67 | 0,0083 | 0,00006 |
| ƩX=22,07 | |  | Ʃ(X-Xrata-rata)2=0,0053 |
| Xrata-rata = 3,6783 | |  | (X-Xrata-rata)2=0,0008 |

SD= = = = 0,0316

Pada interval kepercayaan 99% dengan nilai α=0,01, dk=6-1 = 5, dan diperoleh nilai = 4,0321

thitung = |

thitung 1 = | = | = 1,6821

thitung 2 = | = | = 2,9689

thitung 3 = | = | = 2,9689

thitung 4 = | = | = 3,2325

**Lampiran 11.** Lanjutan

thitung 5 = | = | = 1,6821

thitung 6 = | = | = 0,6434

Semua data diterima karena t hitung < t tabel, maka kadar sebenarnya adalah:

µ= Xrata-rata ± |tα/2 ()|

µ= 3,6783 mg ± |4,0321 (0,0129)|

µ= 3,6783 ± 0,0520 mg/100g

**Lampiran 12.** Data Perhitungan Konsentrasi dan Kadar dan Kadar Sebenarnya Salak Gula Pasir

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No | Berat Sampel  (g) | Serapan (Y) | Konsentrasi (X) | Volume Labu (ml) | FP | Kadar yang diperoleh (mg/100 g) |
| 1 | 50 | 0,336 | 3,3532 | 100 | 13.32 | 8,93 |
| 2 | 50 | 0,335 | 3,3431 | 100 | 13,32 | 8,9 |
| 3 | 50 | 0,334 | 3,3329 | 100 | 13,32 | 8,87 |
| 4 | 50 | 0,339 | 3,3836 | 100 | 13,32 | 9,01 |
| 5 | 50 | 0,337 | 3,3633 | 100 | 13,32 | 8,95 |
| 6 | 50 | 0,338 | 3,3734 | 100 | 13,32 | 8,98 |

**Perhitungan**

1. **Konsentrasi Terukur**

Y=0,0988X+0,0047

Sampel 1

Y=0,0988X+0,0047

0,336 = 0,0988X+0,0047

X=

X=3,3532 μg/ml

Sampel 2

Y=0,0988X+0,0047

0,335 =0,0988X+0,0047

X=

X=3,3431 μg/ml

**Lampiran 12.** Lanjutan

Sampel 3

Y=0,0988X+0,0047

0,334 =0,0988X+0,0047

X=

X=3,3329 μg/ml

Sampel 4

Y=0,0988X+0,0047

0,339 =0,0988X+0,0047

X=

X=3,3836 μg/ml

Sampel 5

Y=0,0988X+0,0047

0,337 =0,0988X+0,0047

X=

X=3,3633 μg/ml

Sampel 6

Y=0,0988X+0,0047

0,338 =0,0988X+0,0047

X=

X=3,3734 μg/ml

1. **Kadar**

Kadar =

Kadar =

=

=89,32 µg/mg= 0,0893 mg/g = 8,93 mg/100 g

**Lampiran 12.** Lanjutan

Kadar =

=

=89,06 µg/mg = 0,0890 mg/g = 8,9 mg/100 g

Kadar =

=

=88,78 µg/mg= 0,0887 mg/g = 8,87 mg/100 g

Kadar =

=

=90,13 µg/mg= 0,0901 mg/g = 9,01 mg/100 g

Kadar =

=

=89,59 µg/mg= 0,0895 mg/g = 8,95 mg/100 g

Kadar =

=

=89,86 µg/mg= 0,0898 mg/g = 8,98 mg/100 g

**Lampiran 12.** Lanjutan

1. **Kadar Sebenarnya Vitamin C**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Kadar (X) | X-Xrata-rata | (X-Xrata-rata)2 |
| 1 | 8,93 | 0,01 | 0,0001 |
| 2 | 8,9 | 0,04 | 0,0016 |
| 3 | 8,87 | 0,07 | 0,0049 |
| 4 | 9,01 | 0,07 | 0,0049 |
| 5 | 8,95 | 0,01 | 0,0001 |
| 6 | 8,98 | 0,04 | 0,0016 |
| ƩX=53,64 | |  | Ʃ(X-Xrata-rata)2=0,0132 |
| Xrata-rata = 8,94 | |  | (X-Xrata-rata)2=0,0022 |

SD= = = = 0,0509

Pada interval kepercayaan 99% dengan nilai α=0,01, dk=6-1=5, dan diperoleh nilai = 4,0321.

thitung = |

thitung 1 = | = | = 0,4830

thitung 2 = | = | = 1,9323

thitung 3 = | = | = 3,3816

thitung 4 = | = | = 3,3816

**Lampiran 12.** Lanjutan

thitung 5 = | = | = 0,4830

thitung 6 = | = | = 1,9323

Semua data diterima karena t hitung < t tabel, maka kadar sebenarnya adalah:

µ= Xrata-rata ± |tα/2 ()|

µ= 8,94 mg ± |4,0321 (0,0207)|

µ= 8,94 ± 0,0834 mg/100g

**Lampiran 13.** Persamaan Batas Deteksi dan Batas Kuantitas

Persamaan Regresi

Y=aX+b

Y=0,0988X+0,0047

X1 =0,00

X2= 3,00

Y = 0,0988 x 3,00 + 0,0047

= 0,3011

X3 = 4,00

Y = 0,0988 x 4,00 + 0,0047

= 0,3999

X4 = 5,00

Y = 0,0988 x 5,00 + 0,0047

= 0,0987

X5 = 6,00

Y = 0,0988 x 6,00 + 0,0047

= 0,5975

X8 = 7,00

Y = 0,0988 x 7,00 + 0,0047

= 0,6963

**Lampiran 14.** Data Perhitungan Batas Deteksi dan Batas Kuantitas

Y = 0,0988X + 0,0047

Slope = 0,0988

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Konsentrasi (µg/mL)  (X) | Absorbansi  (Y) | Y | (Y-Y1) | (Y-Y1)2 |
| 1 | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| 2 | 3,00 | 0,294 | 0,3011 | -0,0071 | 0,00005041 |
| 3 | 4,00 | 0,384 | 0,3999 | -0,0159 | 0,00025281 |
| 4 | 5,00 | 0,481 | 0,4987 | -0,0177 | 0,00031329 |
| 5 | 6,00 | 0,584 | 0,5975 | -0,0135 | 0,00018225 |
| 6 | 7,00 | 0,699 | 0,6963 | 0,0027 | 0,00000729 |
|  | | | | | Ʃ=0,00080605 |

Sy = SD= = = = 0,014195509

Batas deteksi : =

=

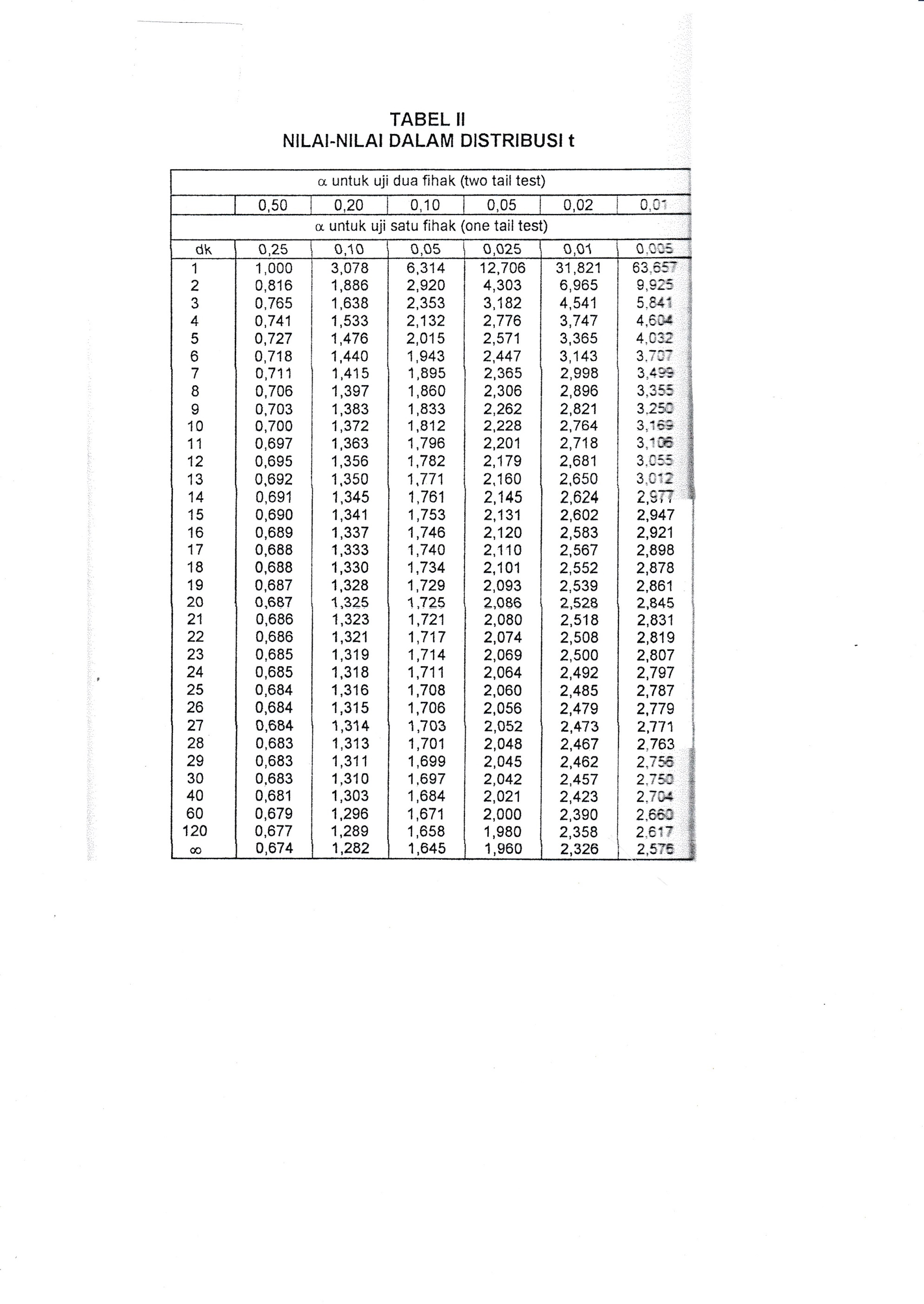
= 0,4310 µg/ml

Batas Kuantitas : =

=

= 1,4368 µg/ml

**Lampiran 15.** Data Distribusi t

****