|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **LEMBAR PERSETUJUAN........................................................................**  **DAFTAR ISI**  Halaman | | | | | **ii** | |
| **TANDA PERSETUJUAN SKRIPSI..........................................................** | | | | | **ii** | |
| **SURAT PERNYATAAN.............................................................................** | | | | | **iii** | |
| **ABSTRAK....................................................................................................** | | | | | **iv** | |
| **ABSTRACT.................................................................................................** | | | | | **v** | |
| **KATA PENGANTAR.................................................................................** | | | | | **vi** | |
| **DAFTAR ISI................................................................................................** | | | | | **viii** | |
| **DAFTAR TABEL........................................................................................** | | | | | **xi** | |
| **DAFTAR GAMBAR...................................................................................** | | | | | **xii** | |
| **DAFTAR LAMPIRAN...............................................................................** | | | | | **xiii** | |
| **BAB I** | **PENDAHULUAN.....................................................................** | | | | **1** | |
|  | 1.1 | | Latar Belakang Masalah..................................................... | 1 | |
|  | 1.2 | | Perumusan Masalah............................................................ | 1 | |
|  | 1.3 | | Tujuan Penelitian................................................................ | 3 | |
|  | 1.4 | | Manfaat Penelitian.............................................................. | 3 | |
|  | 1.5 | | Hipotesis............................................................................. | 3 | |
|  | 1.6 | | Kerangka Pikir Penelitian................................................... | 3 | |
| **BAB II** | **TINJAUAN PUSTAKA..............................................................** | | | | **5** | |
|  | 2.1 | | Kosmetik............................................................................ | 5 | |
|  |  | | 2.1.1 Defenisi kosmetik..................................................... | 5 | |
|  |  | | 2.1.2 Sejarah kosmetik...................................................... | 5 | |
|  |  | | 2.1.3 Penggolongan kosmetik........................................... | 5 | |
|  |  | | 2.1.4 Bahan berbahaya pada kosmetik............................. | 6 | |
|  | 2.2 | | Krim................................................................................... | 7 | |
|  |  | | 2.2.1 Uraian krim.............................................................. | 7 | |
|  |  | | 2.2.2 Krim pencerah kulit................................................. | 8 | |
|  | 2.3 | | Kulit................................................................................... | 8 | |
|  |  | | 2.3.1 Defenisi..................................................................... | 8 | |
|  |  | | 2.3.2 Jenis kulit secara umum......................................... | 8 | |
|  |  | | 2.3.3 Jenis kulit wajah..................................................... | 9 | |
|  |  | | 2.3.4 Warna kulit dan hal-hal yang mempengaruhinya.. | 11 | |
|  | 2.4 | | Hidrokuinon...................................................................... | 12 | |
|  |  | | 2.4.1 Defenisi umum......................................................... | 12 | |
|  |  | | 2.4.2 Defenisi hidrokuinon menurut BPOM.................... | 13 | |
|  | 2.5 | | Spektrofotometri UV......................................................... | 14 | |
| **BAB III** | **METODE PENELITIAN..........................................................** | | | | **17** | |
|  | 3.1 | | Desain Penelitian................................................................. | | 17 | |
|  | 3.2 | | Waktu dan Tempat Penelitian............................................ | | 17 | |
|  | 3.3 | | Alat dan Bahan Penelitian.................................................. | | 17 | |
|  |  | | 3.3.1 Alat............................................................................ | | 17 | |
|  |  | | 3.3.2 Bahan......................................................................... | | 17 | |
|  | 3.4 | | Teknik Pengambilan Sampel.............................................. | | 17 | |
|  | 3.5 | | Prosedur Penelitian............................................................. | | 18 | |
|  |  | | 3.5.1 Analisis kualitatif..................................................... | | 18 | |
|  |  | | 3.5.2 Analisis kuantitatif................................................... | | 18 | |
|  | 3.6 | | Validasi Metode................................................................. | | 20 | |
|  |  | | 3.6.1 Keseksamaan (Presisi)............................................... | | 20 | |
|  |  | | 3.6.2 Linearitas................................................................... | | 20 | |
|  |  | | 3.6.3 Batas LoD dan Batas LoQ........................................ | | 21 | |
| **BAB IV** | **HASIL DAN PEMBAHASAN..................................................** | | | | **22** | |
|  | 4.1 | | Analisis Kualitatif Hidrokuinon........................................ | | 22 | |
|  | 4.2 | | Penentuan Panjang Gelombang Maksimum...................... | | 23 | |
|  | 4.3 | | Penentuan Kurva Kalibrasi................................................ | | 24 | |
|  | 4.4 | | Pemeriksaan Hidrokuinon pada Sampel............................ | | 26 | |
|  | 4.5 | | Uji Validasi........................................................................ | | 29 | |
| **BAB V** | **KESIMPULAN DAN SARAN.................................................** | | | | **31** | |
|  | 5.1 | Kesimpulan........................................................................ | | | 31 | |
|  | 5.2 | Saran.................................................................................. | | | 31 | |

|  |  |
| --- | --- |
| **DAFTAR PUSTAKA .................................................................................** | **32** |
| **LAMPIRAN................................................................................................** | 34 |

|  |  |
| --- | --- |
| **Gambar 2.1** Struktur Hidrokuinon............................................................... | 12 |
| **Gambar 2.2** Skema Alat Spektrofotometer UV-Vis................................... | 16 |
| **Gambar 2.3** Alat Spektrofotometer UV-Vis.............................................. | 16 |
| **Gambar 4.1** Kurva Panjang Gelombang Maksimum Hidrokuinon............ | 24 |
| **Gambar 4.2** Kurva Kalibrasi Hidrokuinon Pelarut Etanol........................... | 25 |

**DAFTAR GAMBAR**

Halaman

|  |  |  |
| --- | --- | --- |
| **Lampiran 1**  **DAFTAR LAMPIRAN**  Halaman | Analisis Kualitatif Hidrokuinon Dengan Reaksi Warna Dengan Fecl3........................................................................ | 34 |
| **Lampiran 2** | Analisis Kualitatif Hidrokuinon Dengan Reaksi Warna Dengan Reagen Benedict.................................................... | 35 |
| **Lampiran 3** | Pembuatan Larutan Baku................................................... | 36 |
| **Lampiran 4** | Perhitungan Konsentrasi Penentuan Panjang Gelombang Maksimum Larutan Hidrokuinon........................................ | 37 |
| **Lampiran 5** | Pembuatan Kurva Baku Hidrokuinon................................. | 38 |
| **Lampiran 6** | Data Hasil Spektrofotometri UV-Vis................................... | 40 |
| **Lampiran 7** | Perhitungan Persamaan Regresi........................................... | 43 |
| **Lampiran 8** | Perhitungan Kadar Hidrokuinon Pada Sampel E................. | 45 |
| **Lampiran 9** | Perhitungan Kadar Hidrokuinon Pada Sampel N................ | 46 |
| **Lampiran 10** | Analisis Data Statistik Sampe E.......................................... | 47 |
| **Lampiran 11** | Analisis Data Statistik Sampel N......................................... | 49 |
| **Lampiran 12** | Penentuan LOD dan LOQ E................................................ | 51 |
| **Lampiran 13** | Penentuan LOD dan LOQ N............................................... | 52 |
| **Lampiran 14** | Uji Warna Pereaksi FeCl3........................................................... | 53 |
| **Lampiran 15** | Uji Warna Pereaksi Reagen Benedict........................................ | 53 |
| **Lampiran 16** | Berat Sampel E........................................................................... | 53 |
| **Lampiran 17** | Berat Sampel N........................................................................... | 53 |
| **Lampiran 18** | Larutan Induk Baku Hidrokuinon....................................... | 54 |
| **Lampiran 19** | Seri Larutan Baku Hidrokuinon.................................................. | 54 |
| **Lampiran 20** | Panjang gelombang maksimum sampel E........................... | 55 |
| **Lampiran 21** | Kurva Absorbansi Sampel E1............................................. | 55 |
| **Lampiran 22** | Kurva Absorbansi Sampel E2............................................. | 56 |
| **Lampiran 23** | Kurva Absorbansi Sampel E3............................................. | 56 |
| **Lampiran 24** | Kurva Absorbansi Sampel E4............................................. | 57 |
| **Lampiran 25** | Kurva Absorbansi Sampel E5............................................. | 57 |
| **Lampiran 26** | Kurva Absorbansi Sampel E6............................................. | 58 |
| **Lampiran 27** | Panjang gelombang maksimum sampel N.......................... | 59 |
|  |  |  |
| **Lampiran 28** | Kurva Absorbansi Sampel N1............................................. | 59 |
| **Lampiran 29** | Kurva Absorbansi Sampel N2............................................. | 60 |
| **Lampiran 30** | Kurva Absorbansi Sampel N3............................................. | 60 |
| **Lampiran 31** | Kurva Absorbansi Sampel N4............................................ | 61 |
| **Lampiran 32** | Kurva Absorbansi Sampel N5............................................. | 61 |
| **Lampiran 33** | Kurva Absorbansi Sampel N6.............................................. | 62 |
| **Lampiran 34** | Tabel Absorbansi dan Kadar sampel E................................ | 63 |
| **Lampiran 35** | Tabel Absorbansi dan Kadar sampel N............................... | 63 |
| **Lampiran 36** | Spektrofotometri UV-Vis.................................................... | 64 |
| **Lampiran 37** | Cuvet................................................................................... | 64 |