

- AMINO ASAM - ANALISIS  
- TOTAL PROTEIN

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**SKRIPSI**

**IRA YUANITA KUSUMA WARDANI**

**PERBANDINGAN KADAR PROTEIN  
DAN ASAM AMINO AMPAS TAHU  
DARI SISA HASIL PENGOLAHAN TAHU  
SECARA TRADISIONAL DENGAN MODERN**

**MILIK  
PERPUSTAKAAN  
UNIVERSITAS AIRLANGGA  
SURABAYA**



**FAKULTAS FARMASI UNIVERSITAS AIRLANGGA  
BAGIAN KIMIA FARMASI  
SURABAYA  
2004**

**Lembar Pengesahan**

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Dibuat Untuk Memenuhi Syarat.  
Mencapai Gelar Sarjana Farmasi Pada  
Fakultas Farmasi Universitas Airlangga

2004

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## ABSTRACT

Tofu refusal is one of the tofu industrial wastes that can be beneficial since it is assumed still contain high protein and amino acid. The purpose of this research is to compare the concentration of protein and amino acid that contained in the traditional with modern tofu refusal. The tofu refusal was acquired from "X" industry, in the home industry center, which has been registered in the Deputy of Industry and Commerce on East Java Region. The sample of tofu refusal was being dried in the temperature 45°C for 24 hours and then being analyzed for concentration of protein and amino acid profile. Spectrophotometry modified Kjeldahl method is used to measure protein concentration. Method validation are selectivity, linearity, precision, and accuracy. Selectivity including maximum wavelength analyzed, addition of Nessler reagent and stability time of complex  $Hg_2I\text{ONH}_2$ . The research found that protein concentration from traditional tofu refusal is 21.54% and modern tofu refusal is 27.37%. And the result, there is significant difference of protein concentration from traditional tofu refusal with modern tofu refusal. Amino Acid Analyzer is used to discover amino acid profile. And the research found that traditional tofu refusal and modern tofu refusal same in amino acid content (17 amino acids), but different in each amino acid concentration. The highest concentration amino acid is glutamic acid and the least is methionine. The difference of amino acid concentration is 0.01% to 0.15%. And the result, there is the difference of concentration amino acid from traditional tofu refusal with modern tofu refusal

Keyword: tofu refusal, kjeldahl, spectrophotometer, amino acid analyzer, protein and amino acid, comparison