

**Amanda, E. R., 2013, Aplikasi *Hollow Fiber-Liquid Phase Microextraction High Performance Liquid Chromatography* (HF-LPME HPLC) untuk Analisis Residu Senyawa Diazinon dalam Sayuran. Skripsi Ini Dibawah Bimbingan Dra. Usreg Sri Handajani, M.Si dan Yanuardi Raharjo, S.Si., M.Sc. Departemen Kimia, Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.**

---

---

## ABSTRAK

Penelitian ini bertujuan untuk mengetahui kinerja, kondisi optimum, serta validasi metode HF-LPME HPLC-DAD (*Hollow Fiber-Liquid Phase Microextraction High Performance Liquid Chromatography*) dalam menganalisis residu pestisida diazinon dalam sayuran. Analisis residu pestisida diazinon dilakukan pada sayuran sawi dari perkebunan dan sawi dari supermarket. Hasil optimasi parameter analitik yang dilakukan adalah jenis pelarut organik n-heksana, panjang *hollow fiber* 1,5 cm, volume larutan sampel 20 mL, dan kecepatan pengadukan 600 rpm. Pada penelitian ini diperoleh limit deteksi sebesar 100 ppb, persen *recovery* sebesar 98,98% sampai dengan 100,42%, presisi antara 0,57% sampai dengan 7,23%, dan *true enrichment factor* sebesar 19.982 kali. Berdasarkan hasil penelitian dapat disimpulkan bahwa metode ekstraksi HF-LPME HPLC-DAD dapat digunakan untuk menganalisis residu senyawa diazinon pada sampel sayuran sawi dari perkebunan dengan konsentrasi sebesar 11,3 ppm dan sampel sayuran sawi dari *supermarket* tidak menunjukkan adanya residu diazinon.

Kata Kunci : HF-LPME, HPLC-DAD, diazinon, sayuran

**Amanda, E. R., 2013, Application of Hollow Fiber Liquid Phase Microextraction High Performance Liquid Chromatography (HF-LPME HPLC) to Analysis Residue of Diazinon Compound in Vegetables. This script is under advisement of Dra. Usreg Sri Handajani, M.Si and Yanuardi Raharjo, S.Si., M.Sc. Chemistry Department, Science and Technology Faculty, Airlangga State University.**

---

---

### ABSTRACT

This research aims to know the performance, optimum conditions, and validation method of HF-LPME HPLC-DAD (*Hollow Fiber-Liquid Phase Microextraction High Performance Liquid Chromatography*) to analysis residues diazinon in vegetables. Analysis of residues pesticide diazinon has been done in mustard from agricultural and supermarket. Optimization results that obtained from the analytical parameters was the type of organic solvent n-hexane, length of hollow fiber was 1.5 cm, volume of sample solution was 20 mL, and stirring speed was 600 rpm. In this research, the detection limit of 100 ppb, percent recovery was between 98,98% to 100,42%, precision between 0.57% to 7.23%, and true enrichment factor is 19.982 times. The research can be concluded that HF-LPME HPLC-DAD can be used to analyze residue of diazinon compounds in mustard from agriculture with the concentration respectively 11,3 ppm and mustard from supermarket not detected residue of diazinon.

Keywords: HF-LPME, HPLC-DAD, diazinon, vegetables