

ABSTRACT

**METHOD VALIDATION OF GAS
CHROMATOGRAPHY WITH FLAME
IONIZATION DETECTOR FOR ANALYSIS
ORGANOCHLORINE RESIDUE IN
ANDROGRAPH (*Andrographis paniculata*) HERBA**

(Preparation with QuEChERS kit)

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Organochlorine is one of pesticide that widely used in agricultural. This condition can lead contamination in andrograph herba. The purpose of this research is obtaining validated method of gas chromatography for organochlorine residue in andrograph with QuEChERS kit. Gas chromatography is widely used to analyze volatile substances like organochlorine. The use of QuEChERS kit for method preparation can give high recoveries, accurate, easy and cheap. The method validation gave a good result for selectivity parameter, resolution value greater than 1.5. It showed a good linearity with $r > 0.99$. Organochlorine α -BHC, δ -BHC, aldrin, heptachlor epoxide, endosulfan I, p'p-DDE, endrin, endosulfan II, p'p-DDD, endrin aldehyde, endosulfan sulfate and metoxychlor recoveries have been considered satisfactory presenting values between 70% and 120% and RSD values $<15\%$ for eleven organochlorines. The results shows that QuEChERS kit preparation applied in andrograph herba samples has been validated for organochlorine aldrin, heptachlor epoxide, endosulfan I, p'p-DDE, endrin, endosulfan II, p'p-DDD, endrin aldehyde, endosulfan sulfate and metoxychlor.

Keyword : method validation, andrograph, organochlorine, gas chromatography, QuEChERS kit