



---

# Chemical Design and Toxicity Evaluation of New Pyrimidothienotetrahydro-isoquinolines as Potential Insecticidal Agents

A.M.K. El-Dean, A.A. Abd-Ella, R. Hassanien, M.E.A. El-Sayed, R.M. Zaki, S.A.A. Abdel-Raheem

## Abstract:

Neonicotinoids are the most widely used from all existing pesticides. So, in purpose to discover new pesticides being more effective against the aphid, twelve heterocyclic compounds neonicotinoid analogs have been prepared in a pure state; pyrimidothienotetrahydroisoquinolines 1-12 and their toxicity as potential insecticidal agents against cowpea Aphid, *Aphis craccivora* Koch was screened. Their characterizations by using spectroscopic analyses were performed. The toxicity data exhibited that the 8-chloropyrimidine compound 4 is more toxic about 2-fold than a reference insecticide, acetamiprid. The other screened compounds showed weak to strong toxicological activities against cowpea aphid.

## Keywords:

Acetamiprid Cowpea Aphid Toxicity Structure-activity relationships (SAR)

## Published In:

Toxicology Reports , 6 , 100-104.