Insecticidal

1. Preparation of pyrimidines, pesticides containing them, and controlling of pests

Hajime, M.

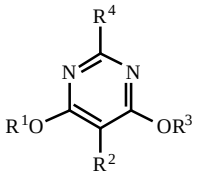
Sumitomo Chemical Co., Ltd., Japan

Jpn. Kokai Tokkyl Koho JP 26 Nov. 2002, 175, 697 (Cl. C07D239/52) 24 Jun 2004 Appl. 2002/341, 835, 26 Nov 2002; 18 pp; *C.A.* **141**(3): 38629e

Abstract: Synthesis of **I** [R^1 = C_{3-7} alkynyl; R^2 = H, halo, C_{1-3} alkyl; R^3 = (halo- or C_{1-3} alkoxy-substituted) C_{1-8} alkyl, (halo- or C_{1-3} alkoxy substituted) C_{3-6} cycloalkyl-C_{1-3} alkyl; R^4 = C_{1-3} (halo)alkyl] derivatives has been carried out in the present research.

Activity and bioassay: Insecticidal activity was found against *Bemisia argentifolii* at 100 ppm by compound **I** (R^1 = MeC≡ CCH_2, R^2 = H, R^3 = $Me_2CHCHMe$, R^4 = Me).

Origin: Synthetic



I

---

2. Novel pyrazole-based anthranilamide insecticides and their preparation, compositions, and use

Andrew, H. K., Philip, L. G. and Pul, S. T.

E.l. Du pont De Nemours and Company, USA

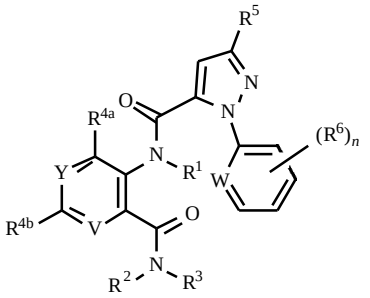
PCT Int. Appl. WO 2004, 46, 129 (Cl. C07D401/00), 3 Jun 2004, US Appl. PV426, 693, 15 Nov. 2002: 96 pp; *C.A.* **141**(2): 23526v

Abstract: Synthetic studies were carried out on the preparation, formulation, composition and insecticidal activities of eighteen compounds of **I** [wherein: Y, V = N or CR^{4n}; W = N, CH, or CR^6; R^1 = H, (un)substituted alkyl, alkenyl, alkynyl or cycloalkyl, alkylcarbonyl, alkoxycarbonyl, (di)alkylaminocarbonyl; R^2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxyl, (di)alkylamino, cycloalkylamino, alkyloxycarbonyl, or alkylcarbonyl; R^3 = H , G , (un)substituted alkyl, alkenyl, alkylynyl or cycloalkyl; or NR^2R^3 = (un)substituted heterocyclic (N/O/S) ring; G = (un)substituted 5-or 6-membered non-aromatic carbo- or heterocyclic ring R^{4a}, R^{4b} = H , various carbon and heteroatom substituents; R^5 = alk(en/yn)-yl, various derivatives of OH, SH, and NH_2; R^6 = (halo)alk(en/yn)yl, OH and derivatives or thio analogs, halo, cyano, CO_2H, (di)alkylamino, (un)substituted Ph, $PhCH_2$, PhCO, PhO etc.; n = 0-4], their oxides and salts.

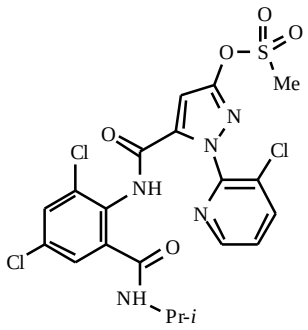
Activity and bioassay: These compounds were examined for their insecticidal activities against *Spodoptera frugiperda*, *Myzus persicae* and *Empoasca fabae*, and were found to possess good insecticidal activity. Compound **II** prevented 80% or more feeding damage by *Plutella xylostella* on radish plants at 50 ppm spray.

Origin: Synthetic

1573-4072/05 $50.00+.00 **© 2005 Bentham Science Publishers Ltd.**



I



II

3. Preparation of carbazines and their use as insecticides

Yutaka, C., Hidenori, D., Atsuko, K., Naoto, K. and Fumiaki, K.

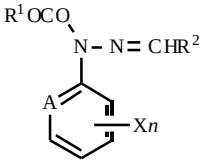
Mitsui Chemicals Inc., Japan

Jpn. Kokai Tokkyo Koho JP 2004, 141, 670 (Cl. C07C281/04 1 Jun 2004, Appl. 2002/329, 192, 13 Nov. 30 pp; *C.A.* **141**(2): 23303v

Abstract: Studies were conducted for the preparation of carbazines with general formula **I** [R^1 = C_{1-6} (halo)alkyl, C_{3-6} cycloalkyl, (un)substituted (hetero)arylalkyl, etc.; R^2 = C_{1-6} alkyl, C_{3-6} cycloalkyl, (un)substituted (hetero) arylalkyl, (un)substituted aryl, etc; X = C_{1-6} (halo)alkyl, (un)substituted Ph, C_{1-6} (halo)alkoxy, C_{1-6} haloalkylthio, C_{1-6} haloalkylsulfinyl, cyano, NO_2. etc, l n = 0-4; A = CR^3, N; R^3 = H, similar group as in X] and their regioisomers. These potent insecticides did not damage crops.

Activity and bioassay: Compound **I** (R^1 = propargyl, R^2 = CMe_3, X_n =2,6-Cl_2-4-CF_3, A = CH) exhibited ≥ 80% insecticidal activity against *Spodoptera litura* at 500 ppm.

Origin: Synthetic



I

4. Extraction of effective component as insecticide from *Daphne genkwa* Sieb. et Zucc.

Xiafeng, Y., Changxin, L., Jia, Q. and Du, S.

Chemical Engineering College, Jinan University, Jinan, Peop. Rep. China 250022.

Huaxue Yanjiu Yu Yingyong 2002, **14**(5), 601-602; *C.A.* **141**(1): 4111q

Abstract: 5,4′-Dihydroxy-7-methoxyflavone has been isolated from *Daphne genkwa* Sieb. et Zucc. It exhibited insecticidal activity against Chinese blister beetle as determined by non-standard insecticidal bioassay experiments.

Activity and bioassay: Non-standard insecticidal experiments.

Origin: Natural product