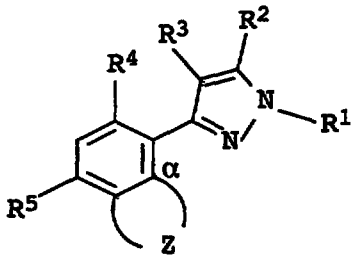
Substituted pyrazol-3-ylbenzazoles

Abstract

Substituted pyrazol-3-ylbenzazoles I



I

and salts thereof where

R^1 = H, C_1-C_4-alkyl, C_1-C_4-haloalkyl;

R^2 = CN, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-haloalkylthio, C_1-C_4-alkylsulfinyl, C_1-C_4-haloalkylsulfinyl, C_1-C_4-alkylsulfonyl, C_1-C_4-haloalkylsulfonyl;

R^3 = H, CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl;

R^4 = H, halogen;

R^5 = H, CN, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;

Z = -N=C(XR^6)-O- or -N=C(XR^6)-S-, bonded to α via the nitrogen, oxygen or sulfur;

X = a chemical bond, oxygen, sulfur, -S(O)-, -SO_2-, -NH- or -N(R^7)-;

R^6, R^7 = C_1-C_6-alkyl, C_1-C_6-haloalkyl, cyano-C_1-C_4-alkyl, hydroxy-C_1-C_4-alkyl, C_3-C_6-alkenyl, cyano-C_3-C_6-alkenyl, C_3-C_6-haloalkenyl, C_3-C_6-alkynyl, cyano-C_3-C_6-alkynyl, C_3-C_6-haloalkynyl, C_1-C_4-alkoxy-C_1-C_4-alkyl, C_1-C_4-haloalkoxy-C_1-C_4-alkyl, C_3-C_4-alkenyloxy-C_1-C_4-alkyl, C_3-C_4-alkynyloxy-C_1-C_4-alkyl, C_3-C_8-cycloalkyloxy-C_1-C_4-alkyl, amino-C_1-C_4-alkyl, C_1-C_4-alkylamino-C_1-C_4-alkyl,

di(C_1-C_4-alkyl)amino-C_1-C_4-alkyl, C_1-C_4-alkylthio-C_1-C_4-alkyl, C_1-C_4-haloalkylthio-C_1-C_4-alkyl, C_3-C_4-alkenylthio-C_1-C_4-alkyl, C_3-C_4-alkynylthio-C_1-C_4-alkyl, C_1-C_4-alkylsulfinyl-C_1-C_4-alkyl, C_1-C_4-haloalkylsulfinyl-C_1-C_4-alkyl, C_3-C_4-alkenylsulfinyl-C_1-C_4-alkyl, C_3-C_4-alkynylsulfinyl-C_1-C_4-alkyl, C_1-C_4-alkylsulfonyl-C_1-C_4-alkyl, C_1-C_4-haloalkylsulfonyl-C_1-C_4-alkyl, C_3-C_4-alkenylsulfonyl-C_1-C_4-alkyl, C_3-C_4-alkynylsulfonyl-C_1-C_4-alkyl, hydroxycarbonyl-C_1-C_4-alkyl, C_1-C_4-alkoxycarbonyl-C_1-C_4-alkyl which may carry a CN or C_1-C_4-alkoxycarbonyl group, C_1-C_4-alkylthiocarbonyl-C_1-C_4-alkyl, aminocarbonyl-C_1-C_4-alkyl, C_1-C_4-alkylaminocarbonyl-C_1-C_4-alkyl, di(C_1-C_4-alkyl)aminocarbonyl-C_1-C_4-alkyl, di(C_1-C_4-alkyl)phosphonyl-C_1-C_4-alkyl, C_1-C_4-alkoxyimino-C_1-C_4-alkyl, C_3-C_4-alkenyloxyimino-C_1-C_4-alkyl,

or C_3-C_8-cycloalkyl, C_3-C_8-cycloalkyl-C_1-C_4-alkyl, phenyl, phenyl-C_1-C_4-alkyl, 3- to 7-membered heterocyclyl or heterocyclyl-C_1-C_4-alkyl with or without substitution, where each cycloalkyl and each heterocyclyl ring may contain a CO or CS ring member;

if X = a chemical bond, -O-, -S-, -NH- or -N(R^7)-, R^6 is also C_1-C_4-alkylcarbonyl, C_1-C_4-haloalkylcarbonyl, C_1-C_4-alkoxycarbonyl, C_1-C_4-alkylsulfonyl or C_1-C_4-haloalkylsulfonyl;

if X = a chemical bond, R^6 is furthermore CN, SH, NH_2, halogen, $-CH_2-CH(halogen)-R^8$, $-CH=CH-R^8$ or $-CH=C(halogen)-R^8$, where R^8 = COOH, C_1-C_4-alkoxycarbonyl, C_1-C_4-alkylthiocarbonyl, $CONH_2$, C_1-C_4-alkylaminocarbonyl, di(C_1-C_4-alkyl)aminocarbonyl or di(C_1-C_4-alkyl)phosphonyl;

or R^6 + R^7 = a 1,3-propylene, tetramethylene, pentamethylene or ethylenoxyethylene chain with or without substitution.

Use: as herbicides; for the desiccation/defoliation of plants.