

研究简报

1-吡唑酰基-4-芳基氨基脲类化合物的合成及除草活性

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摘要 为了寻求新的含吡唑氨基脲先导化合物,用4-溴-1-甲基-3-乙基-5-

吡唑甲酰肼与取代苯基异氰酸酯反应得到了14个新的含吡唑氨基脲类化合物.经IR, <sup>1</sup>H NMR,

MS和元素分析对化合物的结构进行了表征.初步生物活性实验结果表明,在225 mg/m<sup>2</sup>浓度下,1-(1-甲基-3-乙基-4-溴-5-吡唑甲酰基)-4-(2,4-二甲基苯基)氨基脲(**4k**)对苘麻(*Abutilon theophrasti*)、藜(*Chenopodium album*)及刺苋(*Amaranthus spinosus*)抑制活性达到100%.

关键词 [吡唑](#) [氨基脲](#) [除草活性](#)

分类号

Synthesis and Herbicidal Activities of 1-Pyrazol-5'-ylcar-bonyl-4-arylsemicarbazide

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**Abstract** In order to find new semicarbazide lead compounds, 1-pyrazol-5'-ylcarbonyl-4-substituted phen-ylsemibazides were synthesized from 4-bromo-3-ethyl-1-methyl-5-hydrazinocarbonylpyrazole and substituted phenyl isocyanate. The structures of all new compounds were confirmed by <sup>1</sup>H NMR, IR, MS spectra and elemental analysis. The results of biological tests indicated that, at the concentration of 225 mg/m<sup>2</sup>, 1-(4-bromo-3-ethyl-1-methyl-pyrazol-5'-ylcarbonyl)-4-(2,4-dimethylphenyl)semicarbazide (**4k**) showed inhibitory activities (100%) against *Abutilon theophrasti*, *Chenopodium album* and *Amaranthus spinosus*.

**Key words** [pyrazole](#) [semicarbazide](#) [herbicidal activity](#)

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