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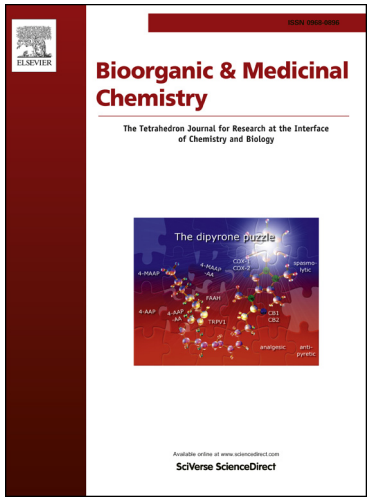

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Synthetic approaches to the 2010-2014 new agrochemicals

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Abstract

In this review, the synthesis of 30 agrochemicals that received an international standardization organization (ISO) name during the last five years (January 2010 to December 2014) is described. The aim is to showcase the range and scope of chemistries used to discover or produce the latest active ingredients addressing the crop protection industry's needs.

Abbreviations: Ac, acetyl; ALS, acetolactate synthase; aq., aqueous; BzCl, benzoyl chloride; cat., catalytic; DBU, 1,8-diazabicyclo[5.4.0]undec-7-ene; DIPEA, diisopropylethylamine; DMA, dimethylacetamide; DME, dimethoxyethane; DMF, dimethylformamide; eq., equivalent; FRAC, fungicide resistance action committee; GABA, gamma-aminobutyric acid; HPPD, 4-hydroxyphenylpyruvate dioxygenase; IRAC, insecticide resistance action committee; ISK, Ishihara Sangyo Kaisha; ISO, international standardization organization; MsCl, methanesulfonyl chloride; NBS, *N*-bromosuccinimide; NCS, *N*-chlorosuccinimide; NMP, *N*-methyl-2-pyrrolidone; PKS, polyketide synthase enzyme; PPO, protoporphyrinogen oxidase; rt, room temperature; SDHI, succinate dehydrogenase inhibitor; TBME, *tert*-butyl methyl ether; THF, tetrahydrofuran; TMEDA, tetramethylethylenediamine.

Keywords: Synthesis; Agrochemicals; Crop Protection; Fungicides; Herbicides; Insecticides; Nematicides

1. Introduction

This review article aims to present the synthetic methods for the agrochemicals that received an international standardization organization (ISO) name during the last five years (January 2010 to

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