



FACULTAD DE QUIMICA  
CENTRO NACIONAL DE INFORMACION QUIMICA

Búsqueda bibliográfica: Técnica analítica de residuos del pesticida  
Quinclorac; 8-Quinolinecarboxylic acid, 3,7,- dichloro; 3,7- dichloro-8-  
quinolinecarboxylic acid; CAS Number: 84087-01-4

jul.1998

300191, Peop. Rep. China). Huanjing Kexue, 17(1), 27-30 (Chinese) 1996. CODEN: HCKHDV. ISSN: 0250-3301. DOCUMENT TYPE: Journal CA Section: 5 (Agrochemical Bioregulators) Section cross-reference(s): 19

Keywords

quinclorac dissipation residue water rice soil

Index Entries

Rice

Soils

quinclorac dissipation and residue in rice field water, soil and rice plant

84087-01-4

dissipation and residue in rice field water, soil and rice plant

TI - **Title: Reversed-phase high-performance liquid-chromatographic determination of quinclorac.-**  
Author: Lu,-ZB; Liu,-YL; Xu,-W; Tian,-CX- Address of Author: Jilin Agric. Univ., Changchun  
130118, China- Country Affiliation: China- Source: Sepu. May 1994; 12(3): 217-218- CODEN: SEPUER-  
Publication Year: 1994- Language: Chinese- Publication Type: Journal- Abstract: Sample (10  
mg) was stirred ultrasonically for 5 min with 10 ml of methanolic 1.6% 3,5-dihydroxytoluene (internal standard) soln.  
and 50 ml of methanol. The resulting soln. was analysed by HPLC on a column (15 cm x 6 mm i.d.) of Shim-Pack  
CLC-CN, with methanol/0.5% acetic acid (3:7) as mob The calibration graph was linear from 0.1-0.8 mg/ml of  
quinclorac. The RSD (n = 5) was - Index Headings - Analyte: quinclorac-A: [84087-01-4]. detmn. of, by HPLC-  
Index Headings - Concepts: chromatography,-liquid,-high-performance-C: in agricultural analysis-  
Section Code: H-Environment,-Agriculture-and-Food- Subsection Code: 50000- Copyright:  
Copyright: The Royal Society of Chemistry- Accession Number: 5611H00185- Update code: 5611-

**Title: Determination of quinclorac residues in water using bonded-phase silica extraction and chromatography.-**  
Author: Wang,-Y; Crosby,-DG- Address of Author: Minist. Agric., Inst. Agro-Environ.  
Prot., Tianjing 300191, China- Country Affiliation: China- Source: Huanjing-Huaxue. 1992; 11(1): 29-34-  
ISSN: 0254-6108- CODEN: HUHADB- Publication Year: 1992- Language: Chinese-  
Publication Type: Journal- Citation, Secondary: Chem. Abstr.- Abstract: Quinclorac (I) was  
extracted from water using bonded-phase SiO<sub>2</sub> and I was eluted with ethyl acetate. The eluate was analysed by GC  
after derivatization with N-methyl-N-(t-butyltrimethylsilyl)trifluoroacetamide. Alternatively, I was determined by  
direct HPLC analysis.- Index Headings - Analyte: quinclorac-A: [84087-01-4]. detmn. of, in water, by bonded-  
phase silica extraction - GC and HPLC- Index Headings - Matrix: waters,-natural-M: detmn. of quinclorac in, by  
bonded-phase silica extraction - GC and HPLC- Section Code: H-Environment,-Agriculture-and-Food-  
Subsection Code: 50000- Cross Reference Sections: H3- Copyright: The Royal Society of  
Chemistry- Accession Number: 5502H00142- Update code: 5502

**Quantitative Analysis of Quinclorac and Degradates by Ionspray  
LC-MS/MS**

Robert A. Bethem, Jeannine Jordan and Steven McGowan.

Presented at the 44th ASMS Conference on Mass Spectrometry and  
Allied Topics, May 12 - 16, 1996.

View Poster (56K)

Abstract

Quinclorac, a quinoline di-carboxylic acid, is the active ingredient in Facet herbicide which is used in the post emergent control of certain grasses and broadleaves in rice. It is similar to natural product quinolines which are ubiquitous in soils, making isolation, separation and quantitative analysis especially difficult. Due to the acidic nature of the compound, metabolism work concluded that a basic extraction was necessary to extract quinclorac from the soil. The similarity to natural compounds, coupled with the sodium hydroxide extraction made successful isolation ("clean-up") a severe problem for all quinclorac methods. The need to quantify hydroxy and methyl ester degradates compounded the problems. Earlier methods included HPLC column switching, GC column switching, and derivitization followed by GCMS. An LC-MS/MS method using ionspray atmospheric pressure ionization has been developed and validated for routine analysis of quinclorac and two degradates. Sample extracts are reconstituted in the HPLC mobile phase and analyzed directly. This method has been successfully used for the analysis of hundreds of soil sample with a quantitative reporting limit of 10 ppb.  
<http://www.altalab.com/research2.html/>



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**124:53941**

Development of analytical methods for multiresidue of pesticides in rice and produce.  
(Committee on Analytical Method of Pesticide Residue, Japan). *Shokuhin Eisei Kenkyu*, 45(9), 31-49 (Japanese) 1995.  
CODEN: SHEKAR. ISSN: 0559-8974. DOCUMENT TYPE: Journal CA Section: 17 (Food and Feed Chemistry)  
Section cross-reference(s): 5

Keywords

pesticide residue detn HPLC rice produce

Index Entries

Fruit

Pesticides

Rice

Vegetable

chromatog. for multiresidue of pesticides in rice and produce

Chromatography, column and liquid

high-performance, chromatog. for multiresidue of pesticides in rice and produce

**117:186552**

Analytical methods for determination of pesticide residues in animals, plants, and the environment.  
Kobayashi, Hiroko (Mitsukaido Lab., Inst. Environ. Toxicol., Mitsukaido 303, Japan). *Nippon Noyaku Gakkaishi*,  
17(2), S125-S136 (Japanese) 1992. CODEN: NNGADV. ISSN: 0385-1559. DOCUMENT TYPE: Journal; General  
Review CA Section: 5 (Agrochemical Bioregulators) Section cross-reference(s): 4, 61

Keywords

review pesticide residue gas chromatog spectrometry

Index Entries

Pesticides

detn. of residues of, by gas chromatog.-mass spectrometry

Mass spectrometry

gas chromatog. combined with, for detn. of pesticide residues

Chromatography, gas

mass spectrometry combined with, for detn. of pesticide residues

Environmental analysis

pesticide residue detn. in, by gas chromatog.-mass spectrometry

Plant analysis

pesticide residues detn. in, by gas chromatog.-mass spectrometry

**125:3486**

Studies on the analytical method of newly regulated pesticide residues by high-performance liquid chromatography.  
Fukuda, Yutaka; Sasaki, Tamao; Murano, Setsuko; Nakashima, Mie; Seo, Yoshiko; Funakoshi, Atsushi; Yano,  
Yasumasa; Kubota, Akitoshi; Nakano, Ikuo; Mito, Masamichi (Hiroshima City Inst. Public Health, Hiroshima 733,  
Japan). *Hiroshima-shi Eisei Kenkyusho Nenpo*, Volume Date 1994, 14, 33-45 (Japanese) 1995. CODEN: HEKNEU.  
ISSN: 0911-2073. DOCUMENT TYPE: Journal CA Section: 5 (Agrochemical Bioregulators) Section cross-  
reference(s): 80

Keywords

pesticide residue HPLC

Index Entries

Pesticides

detn. of pesticide residues by HPLC

Chromatography, column and liquid

high-performance, detn. of pesticide residues by HPLC

**125:51432**

The dissipation and residue of quinclorac in rice field water, soil and rice plant.  
Wang, Yiru; Liu, Changwu; Niu, Chengyu; Liu, Xiaowei; Jiang, Qiyang (Inst. Agro-Environmental Protection, Tianjin