

## Database dedicated to information published during the Benelux conferences on hormone and veterinary drug residue analyses

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### Abstract

Every other year scientists working in the field of residue analysis participate the “International Symposium on Hormone and Veterinary Drug Residue Analysis” and “Euroresidue” conferences. In each symposium a lot of innovative information is presented. In order to obtain a retrieval system for this growing amount of information, a database dedicated to these conferences was created. The main principles of the database were explained during the Fourth Euroresidue Conference (2000, Veldhoven), but it will be extended from subsequent conferences. It is not the aim to compete with other databases but only to have an easy-to-operate database containing information on hormone and veterinary drug residue analysis. In this second edition, the abstracts of all the proceedings have been added. Moreover, the database may be downloaded up-to-date from a website.

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### 1. Introduction

During the past decades several food contamination scandals have made people distrustful towards food-stuffs, and more particularly towards those of animal origin. In order to regain ones trust in meat all over the world, many chemical and microbiological meth-

ods have been developed to ensure that high quality products enter the food chain.

In order to reach directly and inform scientists working in this field of research, congresses and symposia dedicated to this issue have been organised in many countries around the world. In the Benelux there are two kinds of important conferences, the first one being the “International Symposium on Hormone and Veterinary Drug Residue Analysis” (chairman: C. Van Peteghem, Belgium), the second one being

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“Euroresidue” (present chairman: A.A. Bergwerff, The Netherlands). The First International Symposium, also known as the “Ghent Conference”, was organised in 1988 followed by further editions in 1990, 1992 (Ghent, Belgium), 1994, 1998 (Bruges, Belgium) and 2002 (Antwerpen, Belgium). The First Euroresidue Conference took place in 1990 (Noordwijkerhout, The Netherlands). Euroresidue II–IV were held in 1993, 1996 and 2000 (Veldhoven, The Netherlands). Euroresidue V will be held again in 2004 in Noordwijkerhout. In 1996, both committees decided to organise the conferences in turn every 2 years [1–10].

In each conference a great deal of innovative information is presented. Proceedings of the Ghent conferences are published in journals such as *Journal of Chromatography*, *Analytica Chimica Acta* and *The Analyst*, while the proceedings of the Euroresidue conferences have been published by the organising committee itself. In order to obtain a retrieval system for this growing amount of information, a database dedicated to these conferences has been created. The main principles of the database were explained during the Fourth Euroresidue Conference (Euroresidue IV, Veldhoven, 2000), but in this second edition the abstracts of all the proceedings have been added. Moreover, the database may be downloaded up-to-date from the website (<http://allserv.rug.ac.be/~hdbraban/database.html>) and will be extended to include subsequent conferences.

In this review the aim of the database will be explained. The database’s structure and how to work with it will also be discussed.

## 2. Aim of the database

Since the First Ghent Conference, organised in 1988, until that recently organised (June 2002) and reported herein, over a thousand scientific proceedings in which specialists outstanding in the field of residue analysis have published results of both accidental discoveries and direct developments. This results in an overwhelming amount of information. As a quick and easy overview of all papers is essential for both specialists and new researchers in this area, it was decided to create a database dedicated only to the proceedings published during these symposia. It was not the aim

of the authors to compete with existing databases, but to create a small and easy-to-operate source for quick and specific information on residue analyses aspects.

## 3. Basic instructions to use the database

### 3.1. Software information

Database programs are much easier to use than just a few years ago. You can take advantage of this resource with just a moderate investment of your time. This database is free of charge, it can be used on any computer (PC or Mac), and there is no need to buy any software to run it (it comes bundled with the software that runs it). The database can be downloaded from the Internet at <http://allserv.rug.ac.be/~hdbraban/database.html>. It has been developed using Filemaker Pro, a versatile and easy to learn, easy to use program that works on both PC and Mac computers.

#### 3.1.1. Mac(intosh)

For the Mac users two versions of the database are available, both as a Mac Stuffit Deluxe Expander “sea” file. If not standard on the computer, the most recent version of Stuffit Deluxe Expander may be downloaded for free from the Internet (extension: .sit). In addition, there is a README file for Mac users in word-format to explain the download procedure. There are two versions: Mac database A and B. The difference between the two database files is that for A the program Filemaker Pro 4.1 or higher is needed on the user’s computer, while B includes its own free runtime version of Filemaker Pro.

#### 3.1.2. PC

For PC users an analogous explanation can be given. Again there are two versions of the database, and both are extracting ZIP files. In addition there is a README file in word-format to explain the download procedure. The PC database A file is a WINZIP file and a copy of Filemaker Pro 4.1 or higher is needed to use this file. If this program is not installed on the computer, PC database B should be downloaded. It includes the database and a free RUNTIME version of Filemaker Pro that allows using the database without purchasing the program itself. This file is also a WINZIP file.

### 3.2. Basic instructions to use the database

The MODE menu lists three modes of which *browse* is the default mode. This mode is used to browse through the database records. Located above at the left side of the screen a large box containing an icon that looks like an opened three-ring binder and a small scroll bar allow the user to move forward and backward in a record set. Below this box is the word “records” and below that a number assigning the number of records available in the database. A click on the lower page in the binder enables one to advance to the next record in the current set of records, and a click on the upper page backtracks to the previous record. Moving forward in a record set can be convenient to quickly review data in several records. By clicking on the scroll bar to the right of the binder and moving it up or down a rapid move through the record set can be established. The small number displayed below the scroll bar tells which record is currently viewed.

The second mode is *find*. This mode can be used to conduct a search, though searches can also be carried out by clicking on the ‘search’ button on the title page. When entering data or keywords in a field in the *find* mode, the data will become the criteria for a search when the ‘find’ button at the left on the screen is clicked. The database can be used to provide general information on residues, or more specific and complex search modes can result in one article. The more data and keywords are entered in the *find/search* mode, the more specific the resulting records will be.

After conducting a search, the word ‘found’ will appear on the left side of the screen and below the number of the records found. *Preview* is the third mode that shows how the layout the user is in will look if printed out. A fourth mode that is not listed in the MODE menu is the *desktop* mode. The rectangular box at the upper left corner on the screen, just below the bar showing the name of the database, expands when clicked to show you the possible layouts. ‘Title’ refers to the title page, in ‘List of Contents’ origin and source of the proceedings is mentioned, in ‘List of Abstract’ the corresponding abstract can be read, and in ‘Overview of Keywords’ an overview of all listed abbreviations to fill in the keyword field (see later) is shown.

Sorting records is one of the most powerful features of the database as this can be established by any field.

Just below the information on the left side of the screen it is mentioned whether the current set of records is sorted or not. To sort or resort the records in a particular (ascending or descending) way the MODE menu should be listed and ‘Sort’ should be selected. A dialog box opens showing all fields in the database on the left side. After highlighting the desired fields and clicking on the ‘Move’ button in the middle to move the field to the right side of the dialog box, the ‘Sort’ and the ‘Done’ button should be clicked. The names of the fields can be seen in the layout mode that is listed in the MODE menu. Using the options in the SELECT menu enables the user to obtain further desktop views.

### 3.3. Layout of the database

The database can be seen as an interactive set of records that track the efforts to obtain information on residue analyses. Each record is only one click away at all times and it is easy to sort the information in a subject-specific way and read the resulting abstracts instantly.

The database consists of records in which, depending on the layout, much information is included (Figs. 1 and 2): the number of the record in the database, the conference (Table 1) at which publication was integrated, the number of proceedings during the particular conference, the authors, the title, the publication journal, journal source and year of publication. The keyword fields on the right side of the record enables users to have a first impression on the subject and select the records they are interested in. The keyword fields are divided into four groups based upon subject, matrix, analytical method and analysed residue or contaminant.

#### 3.3.1. Subject

During the symposia, innovations in the field of analytical chemistry and microbiological investigations form the key elements of the scientific programme. Using the subject keyword field makes it possible to select the database records on two aspects analysis and study. Key lectures and proceedings, not related to any specific working area, are classified as “general”.

#### 3.3.2. Residual analytes and contaminants (An)

In the ‘Keyword’ layout, an overview of classes in which analytes were divided into is shown, in which

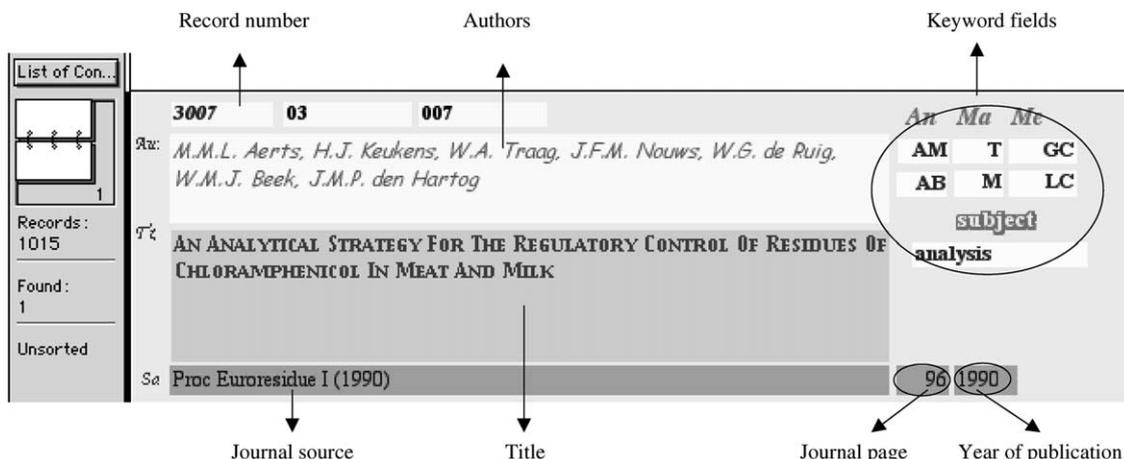


Fig. 1. Example of a database record in the list mode.

the European Medicines Evaluation Agency (EMA) classification was followed as well as possible. The system of classification was based on their pharmacological potency [11]. It should be mentioned that a

component might belong to more than one class. It was tried to order them as specific as possible. In order to avoid additional work in the future, classes of substances not mentioned in the proceedings until

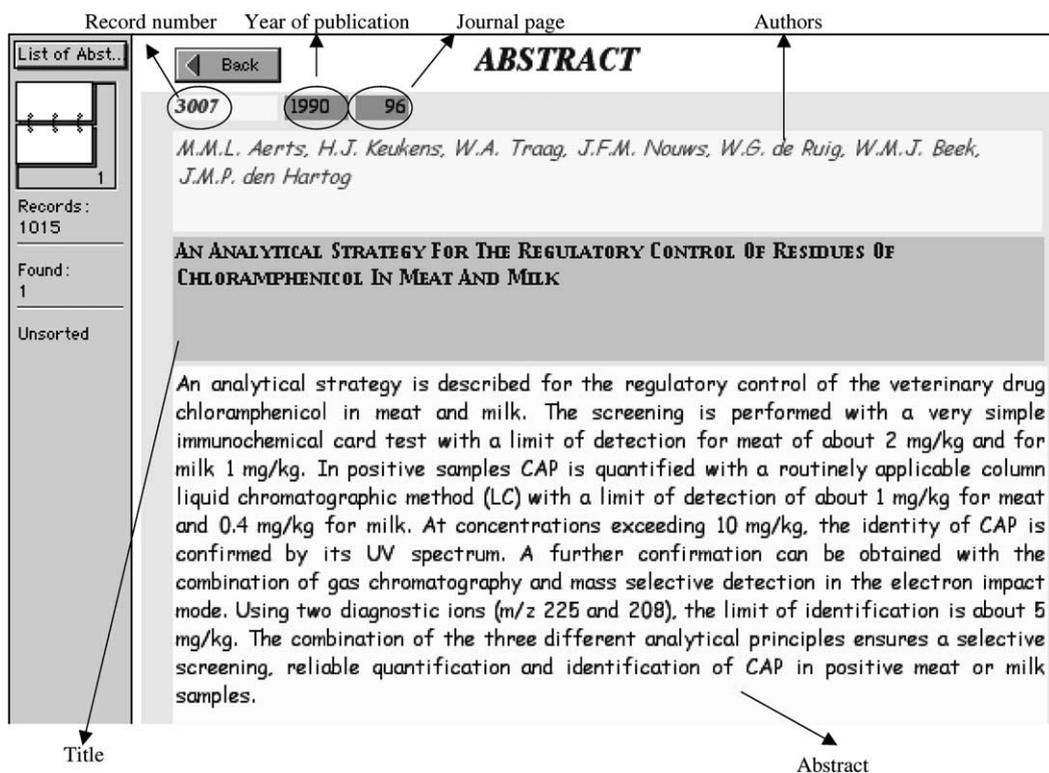


Fig. 2. Example of a database record in the abstract mode.

Table 1  
Overview of organised food residue conferences

| Year | Location        | Conference  | Reference |
|------|-----------------|---|-----------|
| 1988 | Belgium         | First International Symposium on Analysis of Anabolizing and Doping Agents in Biosamples  | [1]       |
| 1990 | Belgium         | Second International Symposium on Analysis of Anabolizing and Doping Agents in Biosamples | [2]       |
| 1990 | The Netherlands | Euroresidue I   | [3]       |
| 1992 | Belgium         | First International Symposium on Hormone and Veterinary Drug Residue Analysis             | [4]       |
| 1993 | The Netherlands | Euroresidue II  | [5]       |
| 1994 | Belgium         | Second International Symposium on Hormone and Veterinary Drug Residue Analysis            | [6]       |
| 1996 | The Netherlands | Euroresidue III   | [7]       |
| 1998 | Belgium         | Third International Symposium on Hormone and Veterinary Drug Residue Analysis             | [8]       |
| 2000 | The Netherlands | Euroresidue IV  | [9]       |
| 2002 | Belgium         | Fourth International Symposium on Hormone and Veterinary Drug Residue Analysis            | [10]      |

now—but could be in future proceedings—were also listed.

### 3.3.3. Matrix (*Ma*) and analytical methods (*Me*)

Residues can be detected in a wide range of matrices. A list of matrices and according abbreviations can be found in the ‘Keyword’ layout. As can be noticed, most matrices are veterinary because veterinary food products are the key elements for the conferences.

The methods and analytical instruments used to perform extraction and/or detection are also listed in the ‘Keyword’ layout. Again, it was tried to create an overview that was as complete as possible.

## 4. Conclusions

A database dedicated to scientific proceedings on residues in food, published during the Benelux food residue conferences, has been created and consists of over a thousand scientific proceedings. It was not the authors’ intention to compete with existing databases,

as available on the Internet, but only to have a small and easy-to-operate database for a quick and easy overview of all papers on residue analysis. In this version 2002, the abstracts of all the proceedings have been added. The database can be downloaded from our website (<http://allserv.rug.ac.be/~hdbraban/database.html>) to make the database accessible all over the world. Doing so users will be able always to have an up-to-date version of the database at their disposal.

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