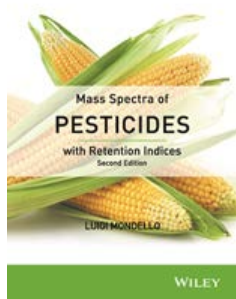# Mass Spectra of Pesticides with Retention Indices, 2nd Edition

Luigi Mondello

Introduction

The Purest Samples Make the Best Pesticides Library

Pesticides and agrochemicals are widely used in the production of large-scale agriculture. Their determination is essential for consumer's health protection. Mass spectrometry is the most important technology for pesticide analysis and the Pesticides Library provides significant support for peak assignment in complex mixtures. The **Mass Spectra of Pesticides with Retention Indices, 2nd Edition**, contains 1,300 pesticide molecules classified in 20 different classes. This edition features 342 new pesticides compounds, 1,300 LRI values on a SLB-5ms column, and 147 LRI values on an EQUITY-1 column. Mass spectra, relative to standard and well-known simple matrix components, were obtained and recorded through GC-qMS separation/identification. Furthermore, information relative to each component (CAS number, common name, systematic name, nominal mass (as Mol Wt), compound formula, chemical class) plus Linear Retention Index (LRI) values are included.

Specifications

- Contains 1,300 pesticide compounds in 20 different classes:

- Adjuvants: 12
- Acaricides: 93
- Alkanes: 34
- Artifacts/Degradation products: 63
- Avicides: 1
- Bactericides: 29
- Fungicides: 187

- Herbicides: 248
- Insecticides: 236
- Molluscicides: 7
- Nematicides: 11
- Pesticides: 112
- Pesticides intermediers: 48
- Pesticides metabolites: 80

- Pheromones: 56
- Plant growth regulators: 37
- Preservative: 2
- Repellents: 17
- Rodenticides: 10
- Solvents: 17

Compound Coverage

Compound coverage for individual compounds can be verified at **www.compoundsearch.com**

Compatibility
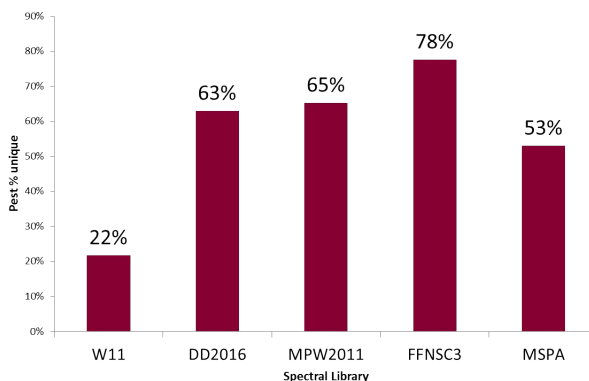
Compatible with most current and legacy mass spectrometry data systems, including:

- Agilent Chemstation and Masshunter
- ACD/Labs
- NIST MSSearch 2.2
- PerkinElmer TurboMass
- ThermoScientific XCalibur
- Waters MassLynx

Shimadzu GCMS Solution format is available exclusively from Shimadzu.

Overlap Analysis

What percentage of compounds featured in the Pesticides library can not be found in any other spectral library?

Biography

Professor Dr. Luigi Mondello received a degree in Chemistry from the University of Messina, Italy in 1991 and is now a Full Professor of Analytical Chemistry in the Department of Chemistry Science, Biological Science, Pharmaceutical Science and Environmental Science for the University. Prof. Mondello is currently the author of 292 scientific papers, 63 book chapters, and 25 reviews. His research interests include chromatography techniques and the advancement of coupled techniques such as LC-GC-MS, GC-GC, GCxGC, LCxLC, LCxGC and their applications in the study of natural and synthetic complex matrices.

Ordering Information

Mass Spectra of Pesticides with Retention Indices, 2nd Edition

ISBN: 978-1-119-28404-8

Mass Spectra of Pesticides with Retention Indices, 2nd Edition Upgrade

ISBN: 978-1-119-28986-9