Mario Thevis

Hardcover ISBN: 978-0-470-41327-2 June 2010 $127.00

DESCRIPTION

Enables you to detect, identify, and characterize hundreds of drugs that may be used by athletes

Mass spectrometry has become essential to sports drug testing. This book examines both the principles of sports drug testing and the use of mass spectrometry techniques and mass spectral data to detect, identify, and characterize hundreds of known and unknown drugs that athletes may use to enhance their performance. The author provides a detailed overview of the mass spectrometry of numerous classes of therapeutics and agents, various analyzers to detect low- and high-molecular weight drugs, as well as techniques to discriminate between endogenously produced and synthetically derived compounds.

Mass Spectrometry in Sports Drug Testing begins with a full chapter dedicated to the history of sports drug testing. Next, the book provides the principles and techniques needed to maximize the specificity and sensitivity of mass spectrometric assays, including:

• Detailed, step-by-step assays with sample preparation

• Discussion of both chromatographic separation and mass spectrometric analysis

• Characterization of analytes in order to unequivocally identify banned substances

• Mass spectrometric behavior of low- and high-molecular weight analytes

Throughout the book, descriptive examples illustrate the principles, advantages, and limitations of different assays.
Mass Spectrometry in Sports Drug Testing not only sets forth the role mass spectrometry plays in detecting drug use among athletes, it also adds new insights into the health and ethical issues of doping in sports.

ABOUT THE AUTHOR

Mario Thevis, PhD, is Professor for Preventive Doping Research at the German Sport University Cologne. He has published more than 115 articles in peer-reviewed journals, mainly on mass spectrometry and sports drug testing. Dr. Tevis is often invited to national and international conferences as a speaker and keynote lecturer on mass spectrometry and doping controls.

SERIES

Wiley Series on Mass Spectrometry

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