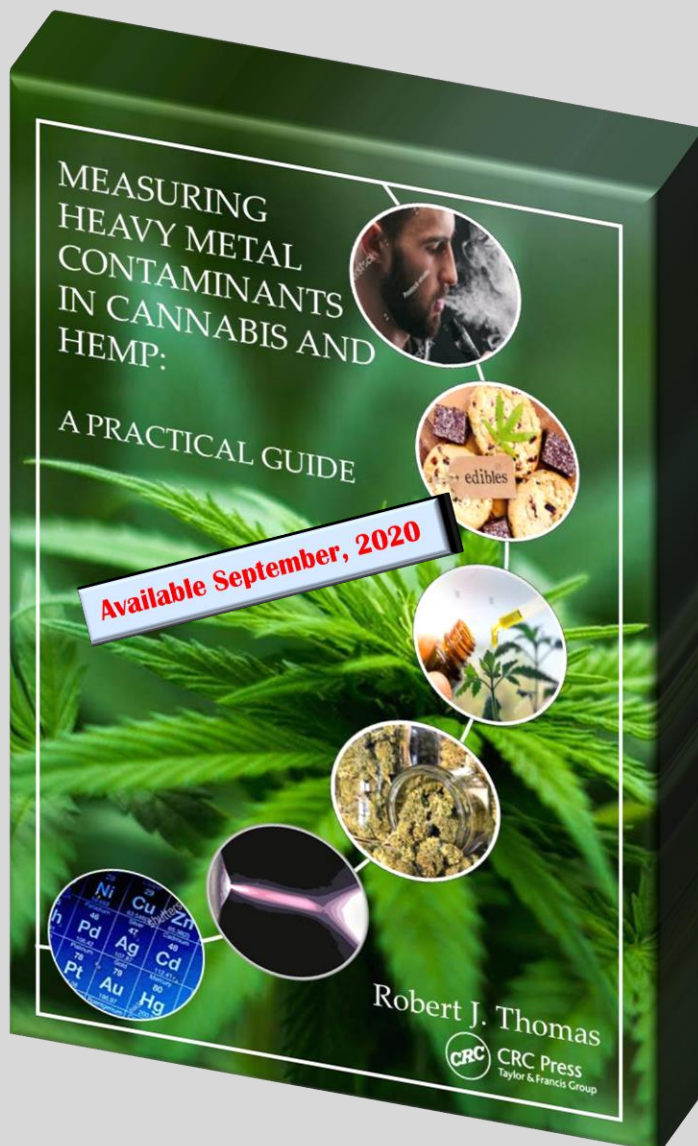


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## Measuring Heavy Metal Contaminants in Cannabis and Hemp: A Practical Guide \*

Robert J. Thomas, CSci, CChem, FRSC  
Principal Consultant  
Scientific Solutions, Gaithersburg, MD  
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- The complete guide to measuring elemental contaminants in cannabis and hemp for growers, cultivators, processors, testing labs and regulators.
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- Suggests strategies to characterize heavy metals in vaping liquids and aerosols
- Covers the important role of other analytical techniques for the comprehensive testing of cannabis products

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[ISBN: 9780367417376 \(Available September, 2020\)](#)

The cannabis and hemp industry is moving at such an alarming rate that the scientific and analytical testing community is struggling to keep up. It is estimated that the demand for medicinal and adult recreational cannabis-based products, containing Tetrahydrocannabinol (THC) and Cannabidiol (CBD) compounds will exceed \$25 billion in the US by 2025. However, because the FDA has only been involved in this process when an investigational new drug (IND) has been submitted to conduct human clinical trials (e.g. Epidiolex™ from GW Pharmaceuticals for the treatment of seizures in young children), regulating the industry to make sure products are safe for human consumption has been left to individual states. In addition, CBD-only products, which are dominating today's marketplace, are for all intents and purposes, unregulated by the federal government at this time.

Unfortunately, many state regulators do not have the necessary experience and background to fully-understand all the safety, quality and toxicological issues regarding the cultivation and production of cannabis and hemp products on the market today. Besides the need to characterize its CBD/THC potency and other beneficial compounds such as terpenoids, one of the most important contaminants to measure is the level of heavy metals, because cannabis and hemp will avidly accumulate trace elements from the growing medium, soil, fertilizers and even the metallic equipment used during the preparation and processing of the various concentrates and oils. The toxicity effects of heavy metals have been well-documented in the public domain, because they have such a serious impact on human health, particularly for young children and adults with compromised immune systems. This new book will therefore focus on the importance of measuring elemental contaminants in cannabis/hemp and how they might be better regulated to ensure that products are safe for human consumption, but also examines the critical role of analytical chemistry for the comprehensive testing of all cannabis products.