

Book title: *Toxicological Assessment for Hazard Evaluation of Combined Chemicals in the Environment* De Sheng Pei; Yiyun Liu Wiley USA ISBN: 978-1-394-15834-8 January 2025

Forward

During the early stages of my research, I struggled to fully explain the toxicity of fluoride in drinking water on human health. It was only later that I realized the necessity of incorporating combined toxicology concepts to properly understand the problem. I would like to congratulate Prof. De-Sheng Pei, Dr. Yiyun Liu, and the contributing researchers for their arduous task of compiling this excellent monograph on combined toxicology.

Unlike toxicological research on single compounds, combined toxicology focuses on adverse reactions that reflect actual environmental exposure conditions, gaining increasing attention from researchers globally. The challenges of combined toxicity experiments, analysis, and predictive models indicate that this field is in its infancy that requires national and international cooperation to address these issues effectively.

This book begins with a comprehensive assessment of combined toxicological philosophy, elucidating toxicokinetic and toxicodynamic processes. The authors pay particular attention to developing essential routes for understanding the fate and mechanisms of toxicants and the detection techniques in combined chemical matrices. They propose carefully chosen experimental models and highlight the importance of advanced computational and "omics" technologies in researching chosen toxicant groups. Future research directions and knowledge transfer avenues are succinctly presented.

The concepts of combined toxicology also provide crucial information and expertise for regulatory authorities, decision-makers, and others to develop programs and policies that limit human exposure to toxic substances, thereby preventing or reducing the risk of disease and other adverse health outcomes.

Therefore, I believe this book will be an invaluable resource for students, researchers, scientists, and policymakers dedicated to managing and protecting the environment. It will also serve as a valuable reference for emerging scientists in the field of combined toxicology.

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