Special Issue

Chemical Ecology in Host–Parasitoid Interactions: Signals, Strategies, and Survival

Message from the Guest Editor

Host–parasitoid interactions represent one of the most intricate and evolutionarily refined relationships in ecological systems, driven largely by chemical communication. This Special Issue explores the role of volatile organic compounds (VOCs), pheromones, and other chemical cues mediating these interactions. Contributions will highlight how parasitoids exploit host-derived chemical signals for localization and oviposition, as well as how hosts evolve counter-strategies, such as detoxification or behavioral avoidance. We welcome studies on molecular mechanisms, field-based ecological observations, and applied research leveraging these interactions for pest management. By synthesizing recent advances in chemical ecology, this Special Issue aims to uncover universal principles and context-dependent variations in these dynamic systems.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Arthropods are a diverse and abundant group of animals that are important to a variety of research dictates. For example, hexapods act as bio-indicators of ecosystem function and pest status and serve as model systems for questions concerning physiology, embryology, genetics, and social interaction. The editorial board and staff at Insects is committed to providing contributors an open access forum to showcase objective and innovative research as well as succinct review articles. Our journal is dedicated to providing timely and thorough review of qualified submissions and we welcome you to submit a contribution.

Editor-in-Chief

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