### **Natural Product Reports**

High impact, critical reviews in natural product research and related areas

#### rsc.li/npr

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

#### IN THIS ISSUE

ISSN 0265-0568 CODEN NPRRDF 42(4) 641-756 (2025)



#### Cover

See Laura Burchill et al., pp. 681-719. Image reproduced by permission of Laura Burchill from Nat. Prod. Rep., 2025, 42, 681. Background depicting Heart Reef, Great Barrier Reef, Queensland by CoffeewithMilk via Pixabay.

#### **EDITORIAL**

40 Years of Natural Product Reports



#### HOT OFF THE PRESS

649

#### Hot off the Press

Robert A. Hill and Andrew Sutherland



# **EES Catalysis**



# Exceptional research on energy and environmental catalysis

Open to everyone. Impactful for all

rsc.li/EESCatalysis

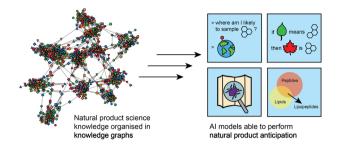
Fundamental questions Elemental answers

#### **VIEWPOINT**

#### 654

#### Empowering natural product science with AI: leveraging multimodal data and knowledge graphs

David Meijer, Mehdi A. Beniddir, Connor W. Coley, Yassine M. Mejri, Meltem Öztürk, Justin J. J. van der Hooft,\* Marnix H. Medema\* and Adam Skiredj\*



#### **HIGHLIGHTS**

#### 663

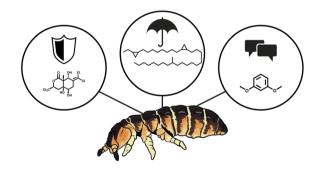
#### Recent advances in the biosynthetic studies of bacterial organoarsenic natural products

Shotaro Hoshino,\* Hiroyasu Onaka\* and Ikuro Abe\*

#### 672

#### Small animals with unique chemistry - the natural product chemistry of Collembola

Anton Möllerke\* and Stefan Schulz\*

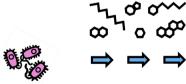


#### **REVIEWS**

#### 681

#### Warfare under the waves: a review of bacteriaderived algaecidal natural products

Shuxin Yang, Spencer J. Williams, Myles Courtney and Laura Burchill\*





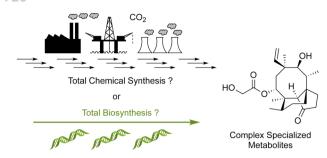
**Bacteria** 

**Algaecidal Natural Products** alkaloids, amino acids, lipids, peptides, polyketides, terpenoids, others

Algae

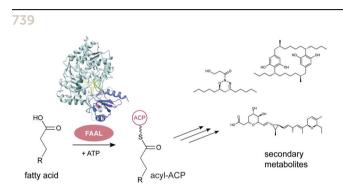
#### REVIEWS

720



# Comparing total chemical synthesis and total biosynthesis routes to fungal specialized metabolites

Dong-Song Tian, Xiao Zhang\* and Russell J. Cox\*



## Fatty acyl-AMP ligases in bacterial natural product biosynthesis

Anne Liong and Pedro N. Leão\*