

# Materials Advances

Volume 4  
Number 12  
21 June 2023  
Pages 2515–2686

[rsc.li/materials-advances](https://rsc.li/materials-advances)



ISSN 2633-5409



## REVIEW ARTICLE

Arthisree Devendran and Atsushi Nagai  
Recent advancements in 3D porous graphene-based  
electrode materials for electrochemical energy storage  
applications