

Contents

About the series — VII

List of contributing authors — XI

H. N. Cheng

1 Use of green chemistry for process development and improvement — 1

Ashutosh Negi, Md. Aasif Jawed, Md. Imteyaz Alam, M. Ali Haider, S. Fatima,
Ejaz Ahmad

**2 Technoeconomic evaluation and life cycle assessment of biorenewable
route to produce high-value aromatics — 13**

Awais Ahmad, Rafael Luque

3 Green chemistry and catalysis — 33

Mara R. Livezey

**4 Green chemistry and environmental justice in the biochemistry
classroom — 45**

Mythreyi Sivaraman, Cole Radke, Weile Yan

**5 Quantifying microplastics in beach sand and river sediment using
thermal analytical methods — 53**

Lindsey A. Welch

**6 Outlook of undergraduate programs in sustainability and environmental
studies in the United States — 75**

Paul Martin, Heinz Plaumann

7 Likely energy solutions for reversing climate change — 83

Renee Trotmann, Mark Benvenuto

8 Carbon dioxide, climate change, and classroom connections — 95

Index — 101