

Contents

Foreword — V

About Professor Bimal Krishna Banik — VII

List of contributors — XI

Sabbasani Rajasekhara Reddy, Sathi Bhulakshmi, Treesa Mary Chacko,
Sanjivani Pal, Snehasish Samal, Abhudaya Desai, K. Shiva Kumar
and Katta Venkateswarlu

Chapter 1

Triethylamine-mediated synthesis of bioactive heterocycles — 1

Bubun Banerjee, Manmeet Kaur, Arvind Singh, Aditi Sharma and Anu Priya

Chapter 2

Organic transformations in nitromethane as solvent — 27

Rahul Dev Mandal, Moumita Saha, Dwaipayan Das and Asish R. Das

Chapter 3

Tert-butyl hydroperoxide (TBHP)-mediated cross-coupling reactions — 55

Kantharaju Kamanna and Yamanappagouda Amaregouda

Chapter 4

Applications of Cyrene and ethyl lactate bio-based solvents for organic transformations — 87

Animesh Mondal and Chhanda Mukhopadhyay

Chapter 5

Solid-phase platform: a nonconventional synthetic route for the current organic synthesis of diversified heterocyclic and carbocyclic framework — 135

Sudipta Saha, Asish Kumar Dey, Shyamal K. Jash and Sasadhar Majhi

Chapter 6

Nonconventional solvents for the isolation of natural products — 183

Nahid Ahmadi and Ali Ramazani

Chapter 7

Role of nonconventional solvents in drug design — 233

Monika Jangid, Avinash K. Rai, Khushbu Sharma, Shubang Vyas, Rakshit Ameta
and Suresh C. Ameta

Chapter 8

Industrial applications of nonconventional solvents — 249

Tarun Virmani, Vaishnavi Chhabra, Girish Kumar, Ashwani Sharma
and Kamla Pathak

Chapter 9

Impact of nonconventional solvents on environment — 265

Index — 285