

## CONTENTS

### *Electrochemistry*

- Toby MORTON-COLLINGS, Richard G. COMPTON.** Theodor Grotthuss: brilliance against all odds ..... 83

### *Biophysical Chemistry*

- Khaled RAIS, Louiza BOUDIBA, Sameh BOUDIBA, Alfred Ngenge TAMFU, Baya BERKA, Selcuk KUCUKAYDIN, Ozgur CEYLAN, Karima HANINI.** Comparative evaluation of phenolic composition, enzymes inhibition, antimicrobial virulence and chemical antioxidant activities of *Atriplex halimus* L. (Amarthaceae) from mining and non-mining sites in Eastern Algeria..... 90

### *Inorganic Chemistry*

- Min MEI, Wenjing YANG.** MOF-derived materials for photoelectrochemical water splitting: design principles, mechanisms, and solar-to-hydrogen applications..... 108
- Maab ELSHEIKH, Živilė STANKEVIČIŪTĖ, Aivaras KAREIVA.** A mini-review on calcium hydroxyapatite composites for antibacterial applications: from inorganic to bioactive organic systems ..... 126

### *Organic Chemistry*

- Lidia ILNICKA, Joanna WARGUŁA.** Reduction of aromatic and cyclic ketones to secondary alcohols – selected strategies and challenges ..... 139

### *Silicate Chemistry*

- Raimundas ŠIAUČIŪNAS.** 85 years of the Department of Silicate Technology at Kaunas University of Technology ..... 157