

CONTENTS

Optimization of Continuous Synthesis of Trazodone <i>Mgr. Natalie Jaklová</i>	7
Vertical Distribution and Precipitation Scavenging of Aerosols in a Rural Atmosphere: Insights from Winter 2019 to Spring 2020 <i>Kajal Julaha, MSc.</i>	9
Fluorinated Methyl B-lactosides and Their Multivalent Presenta- tion <i>Ing. Aleš Krčil</i>	11
Quantifying Separation Quality of LARCODEMS: From Refer- ence Plastic Mixtures to WEEE Streams <i>Ing. Antonín Šperlich</i>	13
Effect of Liquid Composition on Hydrodynamics in Bubble Col- umn with Different Gas Distributors <i>Ing. Mark Terentyak</i>	15
Effect of Particle Size on Monodisperse Granular Mixing Process by Using Discrete Element Method <i>Mgr. Anna Paříková</i>	17
Theoretical Basis for Directional-sensitive Measurements Using Rounded Electrodiffusion Probes <i>Mgr. Václav Harrandt</i>	19
Effect of Young's Modulus on Mixing Dynamics and Heat Trans- port in Granular Materials <i>Mgr. Anna Kokavcová</i>	21
Visible-light Degradation of Tetracycline Using Porous g-C ₃ N ₄ Coatings <i>Ing. Dominik Schimon</i>	23
The New Particle Formation at Two Heights: Instrumental Com- parison <i>Mgr. Anna Špalová</i>	25
Catalysts of Heteroatom Elimination in the Refining of Hydro- carbon Feeds <i>Ing. Jan Moravčík</i>	27
DBSCAN Application for Bubble Tracking in Aerated Columns <i>MSc. Vladislav Shirokov</i>	29

The Effect of Friction Coefficient on the Process of Segregation in a Vertical Bladed Mixer <i>Ing. František Vondráček</i>	31
Enantiomeric Separation via Chiral Membranes and the Effect of a Magnetic Field <i>Ing. Zdena Rudolfová</i>	33
Cultivation Conditions Optimization for <i>Galdieria sulphuraria</i> Biomass and Phycocyanin Production Maximization <i>M. Sc. Matyáš Jedlička</i>	35
Phosphorus-derived Phenanthrenes: Synthesis and Properties <i>Ing. Eliška Mizerová</i>	37
Cloud Droplet Formation: The Crucial Role of Cloud Condensation Nuclei <i>MSc. Charlie Andan</i>	39
Tracing Airborne Pollutants: Investigating Metals in Atmospheric Aerosols <i>Alexander Joy Panjikkaran, M. Sc.</i>	41
Ice Nucleation Particles in the Central European Atmosphere <i>Msc. Joseph Durat</i>	43