1. Record Nr. UNINA9910765539303321 Autore Pandey Rampal **Titolo** Ethanol and Glycerol Chemistry: Production, Modelling, Applications, and Technological Aspects // Rampal Pandey, [and three others] London, England:,: IntechOpen,, 2023 Pubbl/distr/stampa **ISBN** 1-80355-718-4 Descrizione fisica 1 online resource (168 pages) Disciplina 333.9539 Soggetti Ethanol **Biochemistry** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Table of Contents -- 1. Ethanol Production from Bioresources and Its Kinetic Modeling: Optimization Methods -- 2. Catalysis for Glycerol Production and Its Applications -- 3. Bioethanol Production -- 4. Sustainable Synthesis of Pyridine Bases from Glycerol -- 5. Catalytic Conversion of Glycerol to Bio-Based Aromatics -- 6. Ethanol Inhalation in Treatment and Prevention of Coronavirus Disease (COVID-19) -- 7. Nebulized Ethanol: An Old Treatment for a New Disease -- 8. Theoretical Bases for the Disinfection of the SARS-CoV-2-Contaminated Airways by Means of Ethanol Inhalation -- 9. Ethanol as a Subgroup of the UNIFAC Model in the Prediction of Liquid-Liquid Equilibrium in Food and Fuel Systems. Due to their unique physicochemical properties, low cost, and wide Sommario/riassunto availability, ethanol and glycerol have gained attention for their use as alternative feedstocks in the sustainable production of several commodity and specialty products. As a result, during the last decades, there has been intense research aimed at developing the potential applications of these biomass-derived compounds. Ethanol and Glycerol Chemistry - Production, Modelling, Applications, and Technological Aspects discusses recent advances and different aspects of the production, direct applications, and processing of ethanol and glycerol from a multidisciplinary perspective that includes the medical field, fuels, and chemical synthesis.