Special Issue

Direct Synthesis of Hydrogen Peroxide

Message from the Guest Editors

In the past 10-15 years hydrogen peroxide has experienced a constant increase in production with some 5 Mton being expected by the end of 2017. Environmental regulations have played a vital role in popularizing the use of H2O2 over other oxidants, by virtue of the chemical being emission-free and eco-friendly in nature. Hydrogen peroxide's robust growth could be traced back to the overwhelming support of the environmental protection authorities and tightening effluent regulations in almost every application area. However, the current hydrogen peroxide production is still almost exclusively based on the anthraquinone process, while the long-sought alternative direct synthesis from hydrogen and oxygen has been the subject of extensive investigation. This special issue collects original research papers, reviews and commentaries focused on the still open challenges for the direct synthesis of H2O2.

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