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# The Hydrogen (Future and Perspective)

Anshul R. Bhoyar

Department of Chemical Engineering Priyadarshini College of Engineering, Nagpur, India

Abstract: Hydrogen, as a versatile and sustainable energy carrier, has garnered significant attention in recent years due to its potential to revolutionize various sectors. This review paper delves into the diverse aspects of hydrogen, encompassing its types and color classification, alongside an exploration of cuttingedge production technologies. The paper further examines the vast range of potential applications for hydrogen, including its role in transportation, refinery processes, ammonia, and methanol production, as well as its overarching significance for the future of energy. Additionally, a comprehensive analysis of hydrogen storage techniques and utilization strategies is presented, shedding light on the challenges and opportunities associated with harnessing hydrogen's potential. Through an in-depth exploration of these facets, this paper provides valuable insights into the evolving landscape of hydrogen utilization and its pivotal role in shaping a sustainable energy future.".

Keywords: Hydrogen.

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