

Title: State-of-the-art of hydrogen management in refinery and industrial process plants

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Abstract: Hydrogen has been identified as the best raw material for hydro-treating conventional fuels such as gasoline, kerosene and diesel in oil refineries. Hydrogen is actually created and is in short supply. A new approach to minimize hydrogen waste in the industry that already consumes a large percentage of the world's existing hydrogen and to offset the cost of that hydrogen by recycling is an issue receiving much attention. This paper reviews the concepts and the available tools for hydrogen management in industrial processing plants and oil refineries. In addition, the paper emphasizes the challenges faced by refinery product quality regulations.