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### **Novel Indirect Hydrogen Storage Materials**

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Materialization of a hydrogen economy could provide a solution to significant global challenges. In particular, the possibility of improving the efficiency and simultaneously minimizing the environmental impact of energy conversion processes, together with the opportunity to reduce the dependency of fossil fuels, are main drivers for the currently increasing research and development efforts. However, significant technological breakthroughs are necessary for making a hydrogen economy feasible. Particularly, it is necessary to develop appropriate hydrogen storage and transportation technologies. Recently, metal ammine salts were proposed as safe, reversible, high-density and low-cost hydrogen carriers. Here, we discuss how this development could provide a platform for using ammonia as a fuel for the hydrogen economy. We do that by comparing various possible hydrogen carriers with respect to energy and cost efficiency, infrastructure requirements, safety concerns and also environmental impact.