

Catalytic ammonia decomposition over Ru based catalysts

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Due to its high hydrogen density (17.7wt%), CO₂ emission, and established synthesis, ammonia has attracted significant attention as a promising chemical hydrogen storage material for fuel cell applications. For this material to be useful, it is essential to develop viable catalysts that can dehydrogenate ammonia with high stability. In this context, we prepared Ru based catalysts, followed by characterization with SEM, TEM XRD and so forth. The as-prepared catalysts have shown to be highly active for the desired dehydrogenation with high selectivity. For the discussion related to the enhanced stability will be provided.