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Development of Promoters for Hypergolic Reactions with Hydrogen Peroxide

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Energetic Ionic Liquids (EILs) were reported as promising hydrazine-replacement fuels for hypergolic rocket propulsion. However, many of these EILs were ignited by corrosive and hazardous concentrated fuming nitric acid. Significant efforts were recently made to utilize highly-concentrated H_2O_2 as a "green" alternative to the fuming nitric acid and N_2O_4 oxidizers. Although "rocket grade" H_2O_2 is more challenging for use and less safe for storage than commercially-available H_2O_2 (70