

When alkali metals, such as lithium, sodium, and potassium, react with water, several observations can be made: 1. These observations happen because alkali metals have a single electron in their outer shell, which they readily lose during the reaction with water. In summary, when alkali metals react with water, you observe fizzing, heat production, the formation of metal hydroxides, and movement of the metal, all due to their high reactivity and the exothermic nature of the reaction. This can sometimes be enough to ignite the hydrogen gas produced, especially with heavier alkali metals like potassium. Increasing Reactivity: The reactivity of alkali metals with water increases as you move down the group in the periodic table.