

Relative Reactivity - SCH 3U

1. Write a reaction between calcium metal and phosphoric acid (H_3PO_4) which will form the products of calcium phosphate and hydrogen gas. Determine all oxidation states for all atoms. Use these oxidation states to determine the ionic charges found in both phosphoric acid and the product calcium phosphate. Use these charges to determine the correct formula for calcium phosphate. Finally, balance the equation and show which elements have lost electrons (been oxidized) and which elements of gained electrons (been reduced).

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2. Which element Li or K should react faster with Cl_2 and why?

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3. Which element F_2 or Br_2 should react faster with As and why

/4

4. For two bonus marks write one balance chemical equation from #2 and one from #3

/2