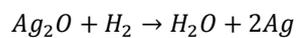


Metallic silver can be prepared by the reaction of hydrogen gas with silver oxide.

Silver oxide is a very expensive reactant compared to hydrogen gas. If you were to carry out this reaction in the lab in the most cost effective way to produce a high yield, which of the reactants should be used in excess?

Answer:

The reaction of hydrogen gas with silver oxide:



As we want to carry out this reaction in the most cost effective way, all used high-cost silver oxide should react with hydrogen, thus hydrogen should be used in excess.

Answer: Hydrogen