

(Reactivity of metals)

Q1. (2020)

Key steps

- add the metals to (dilute) hydrochloric acid
- measure temperature change
or
compare rate of bubbling
or
compare colour of resulting solution

for copper:

- no reaction
- shown by no temperature change
or
shown by no bubbles

for magnesium and iron:

- magnesium increases in temperature more than iron
or
magnesium bubbles faster than iron
or
magnesium forms a colourless solution and iron forms a coloured solution

Control variables

- same concentration / volume of hydrochloric acid
- same mass / moles of metal
- same particle size of metal
- same temperature (of acid if comparing rate of bubbling)

Q2.a)(2022)

B

Q2.b)(2022)

C