

Metal(s) potentially used for human implantation: you be the biomedical engineer and decide!

Objectives

- 1) Students will be able to (swbat) generate evidence regarding the corrosion of metals
- 2) Swbat rank metals in terms of their resistance to corrosion
- 3) Swbat draw conclusions regarding which metal(s) would be best for human implantation

Procedure

Put on your goggles. Fill 6 test tubes halfway with copper sulfate (with a dash of NaCl), HCl, or water. Place the pieces of metals into the test tubes. Time and observe the corrosion process, and also note changes in temperature in the table (below).

1) Describe what you observed:

metal	after ____	after ____	after ____
Mg			
Fe			
304 SS			
Ti			
Al			
Zn			

2) What was (or is) different about metals that corrode versus metals that did not corrode?

3) Which metal(s) did not show signs of corrosion?

4) Which metal(s) would be best and worst for human implantation? Explain your reasoning.
