Metals and their Compounds
Lecture 9.1
Corrosion of metals (20.8 BLB)

Metals have many useful physical properties

- strength - girders
- reflective power - headlamps
- electrical conductivity - cables
- stable to heat - engines

But one serious problem - corrosion.
Familiar examples - rusting of iron
green patina on copper

Some metals do not seem to corrode - gold, aluminium

Why ? Simple answer comes from *activity series* of metals (Table 4.5 p 145 BLB)

Metals higher up in series will *displace* ones lower down from solutions of their ions, for example

$Zn\,(metal) + Cu^{2+} \rightarrow Cu(metal) + Zn^{2+}$

These reactions are *redox* reactions.