

- Which metal is more active than H_2 ?
A) Ag B) Au C) Cu D) Pb
- Which metal will spontaneously react with $Zn^{2+}(aq)$, but will *not* spontaneously react with $Mg^{2+}(aq)$?
A) Mn(s) B) Cu(s)
C) Ni(s) D) Ba(s)
- Which metal is more active than Ni and *less* active than Zn?
A) Cu B) Cr C) Mg D) Pb
- Which metal reacts spontaneously with a solution containing zinc ions?
A) magnesium B) nickel
C) copper D) silver
- According to Reference Table J, which of these metals will react most readily with 1.0 M HCl to produce $H_2(g)$?
A) Ca B) K C) Mg D) Zn
- Which metal can replace Cr in Cr_2O_3 ?
A) nickel B) lead
C) copper D) aluminum
- According to Reference Table J, which of these ions is most easily reduced?
A) Ca^{2+} B) Cr^{3+} C) Cu^+ D) Ag^+
- According to Reference Table J, which metal will react with Zn^{2+} but will *not* react with Mg^{2+} ?
A) Al(s) B) Cu(s) C) Ni(s) D) Ba(s)
- Based on Reference Table J, which metal will react spontaneously with Al^{3+} ?
A) Co(s) B) Cr(s) C) Cu(s) D) Ca(s)
- Based on the Activity Series, which ion will oxidize Pb to Pb^{2+} ?
A) Cu^{2+} B) Ni^{2+} C) Fe^{2+} D) Zn^{2+}
- Based on the Activity Series, which ion will react spontaneously with Co(s)?
A) Zn^{2+} B) Al^{3+} C) Li^+ D) Ag^+
- Based on Reference Table J, which of the following elements will replace Pb from $Pb(NO_3)_2(aq)$?
A) Mg(s) B) Au(s)
C) Cu(s) D) Ag(s)
- According to Reference Table J, which element will react spontaneously with Al^{3+} at 298 K?
A) Cu B) Au C) Li D) Ni
- Due to it having a low activity, which element can be found in nature in the free (uncombined) state?
A) Ca B) Ba C) Au D) Al
- According to Reference Table J, which pair will react spontaneously at 298K?
A) $Cu + H_2O$ B) $Ag + H_2O$
C) $Ca + H_2O$ D) $Au + H_2O$
- According to Reference Table J, which will reduce Mg^{2+} to Mg(s)?
A) Fe(s) B) Ba(s)
C) Pb(s) D) Ag(s)
- According to Reference Table J, which atom-ion pair will react spontaneously?
A) $Ag + Au^{3+}$ B) $Pb + Co^{2+}$
C) $Ni + Al^{3+}$ D) $Zn + Ca^{2+}$
- Which element below can be used to replace chromium from its compound Cr_2O_3 ?
A) Cu B) Pb C) Sn D) Al
- According to Reference Table J, which species can reduce Cr^{3+} ions?
A) Fe^{2+} B) Sn^{2+} C) Al D) Ni
- According to Reference Table J, which metal will react with 1 M $PbCl_2$?
A) Au(s) B) Ag(s)
C) Co(s) D) Cu(s)