What Is Claimed Is:

1. A method comprising:

   a) producing a voltage differential between a set of electrodes separated to form an open circuit;

   b) injecting a conductive material and H_2O between said electrodes to close said open circuit and form a current and voltage across said conductive material;

   wherein said conductive material comprises metal and a metal oxide, and wherein the current and voltage in said closed circuit and conductive material is capable of initiating a plasma forming reaction when H_2O is present as nascent molecules;

   c) collecting the products of said plasma forming reaction;

   d) regenerating said conductive material from said collected products; and

   e) loading said regenerated conductive material between said electrodes.

2. The method according to claim 1, wherein the metal is Cu, Ni, Pb, Sb, Bi, Co, Cd, Ge, Au, Ir, Fe, Hg, Mo, Os, Pd, Re, Rh, Ru, Se, Ag, Tc, Te, Tl, Sn, W, Al, V, Zr, Ti, Mn, Zn, Cr, or In.

3. A method comprising:

   a) producing a voltage differential between a set of electrodes separated to form an open circuit;

   b) injecting a conductive material and H_2O between said electrodes to close said open circuit and form a current and voltage across said conductive material;

   wherein said conductive material comprises metal and a metal halide; and wherein the current and voltage in said closed circuit and conductive material is capable of initiating a plasma forming reaction when H_2O is present as nascent molecules;

   c) collecting the products of said plasma forming reaction;

   d) regenerating said conductive material from said collected products; and

   e) loading said regenerated conductive material between said electrodes.

4. The method according to claim 3, wherein the metal is Cu, Ni, Pb, Sb, Bi, Co, Cd, Ge, Au, Ir, Fe, Hg, Mo, Os, Pd, Re, Rh, Ru, Se, Ag, Tc, Te, Tl, Sn, W, Al, V, Zr, Ti, Mn, Zn, Cr, or In.