What is claimed:

1. A method, the method comprising the steps of:
   a) placing an ultra-high vacuum component in a vacuum furnace chamber;
   b) plasma cleaning the ultra-high vacuum component at a temperature from 80 °C, to 125 °C; and at a pressure greater than 10E-06 mbar to remove hydrocarbons from the ultra-high vacuum component, wherein during plasma cleaning, the temperature is prevented from exceeding 125°C; and
   c) ceasing plasma cleaning and then evacuating the vacuum furnace chamber to reduce a pressure in the vacuum furnace chamber to less than 10E-06 mbar to cause the ultra-high vacuum component to outgas, wherein during evacuating, the temperature is prevented from exceeding 125°C.

2. The method according to claim 1, further comprising evacuating the vacuum furnace chamber to a pressure of less than 10E-6 mbar, after step a) but before step b).

3. The method according to claim 1, further comprising repeating steps b) to c), from 2 to 12 times.

4. The method according to claim 1 wherein gas for forming the plasma is selected from the group consisting of oxygen, air, nitrogen, helium and argon.

5. The method according to claim 4 wherein the gas is oxygen.

6. The method according to claim 1 wherein a gas for forming the plasma is introduced to a pressure of from 0.1E+00mbar to 1E+00mbar, and/or at flow rate from 5 sccm to 20 sccm.

7. The method according to claim 1 wherein the vacuum furnace chamber has a volume of from 250 litres to 350 litres.

8. The method according to claim 1 wherein following step c) the component is cooled and nitrogen is introduced into the vacuum furnace chamber.

9. The method according to claim 1 wherein a plasma generator is used with a voltage

frequency from 20 kHz to 40 kHz.

10. The method according to claim 1 wherein step b) lasts from 15 minutes to 35 minutes.

11. The method according to claim 1 wherein steps a), b) and c) together lasts from 15 minutes to 40 minutes.

12. The method according to claim 1 wherein step c) lasts from about 2 to about 4 hours.

13. The method according to claim 1 wherein the component is cleaned with a solvent before it is placed in the vacuum furnace chamber.