

RCA Clean

- A clean procedure developed in the RCA labs in the late 1960's by Werner Kern. The cleaning process is used for silicon wafers and consists of two cleaning steps commonly referred to as: Standard Clean 1 (SC-1) and Standard Clean 2 (SC-2), often followed by a short HF dip to remove the oxide layer formed during the first two stages.
- SC-1 is done by mixing: Ammonium Hydroxide, Hydrogen Peroxide, and DI water in 1:1:5 ratio at 70°C . The purpose of SC-1 is to remove organic residues from silicon wafers. Soaking time – approximately 15 min.
- SC-2 is done by mixing: Hydrogen Chloride, Hydrogen Peroxide, and DI water in 1:1:6 ratio at 70°C . The purpose of SC-2 is to remove metal ions from silicon wafers. Soaking time – approximately 10 min.
- HF dip: 30 sec in a diluted HF (in DI water ratio of 1 HF: 50 DI water) at room temperature.

Working with chemicals inside CNI clean room must be according to safety procedures, including wearing the appropriate personal protective equipment, working in hours allowed for chemicals processing, and getting appropriate training and certification by staff or superusers.

