

## Low temperature chemical mordanting treatment to increase dental implants osseointegration

In the last decade oral implants experienced a market revolution, specially as far as surface finishing technology is considered, in order to assure an improved **osseointegration** (1).

In this field, NanoSurfaces has developed and performed on countless implants an innovative treatment, BioRough™, based on a double chemical etching.

The treatment involves a first step of surface decontamination from mechanical processes residuals (in particular, metal working oils) and the removal of flashes and upsettings, which can be a breeding-ground for contaminating agents: this step doesn't affect the implant geometry, since thread **crests** (2) are not exceedingly rounded off, and fatigue resistance is preserved.

Moreover, a micro-geometry is produced, composed by **crests and roots**, which was proved to clinically favour the osseointegration cellular processes by creating the so called **morphological biomimesis** (3-6).

The treatment can be followed by washing, clean room packing and sterilization (orthopaedic standards) on demand. Private in vitro and in vivo treatments can also be developed in agreement with the client.

