



# Report on SEM investigation, endosseous implants surface analysis

---

UNIVERSITY OF HELSINKI  
MATEMAATTIS-LUONNONTIETEELLINEN TIEDEKUNTA  
FACULTY OF SCIENCE



# Test goal

---



HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

Three samples were received.

Coding:

THEMYS REF: THD35V LOT: BB04-001-218155-K

TYTAN REF: TYD35V LOT: BB04-001-218155-K

CEOS REF: CED35V LOT: BB04-001-218155-K

# SEM Report

---

For SEM analysis, the samples were attached on standard Al specimen stubs using double-sided conductive carbon adhesive tape.

The samples were imaged using a Hitachi S-4800 cold field emission scanning electron microscope.

The acceleration voltage was 10 keV and the samples were imaged with secondary electrons.

Images were acquired at different magnifications. A scale bar is visible at the lower right part in every image. The number below the scale bar refers to the length of the entire scale bar. Each small part of the scale bar is thus 1/10 of the total length.

The samples showed similar morphologies consisting of pores with diameters varying from below 50 nm to about 1  $\mu\text{m}$ .

Due to the roughness of the sample surface, software could not be used to calculate the number of pores. The number of pores was estimated manually from the images shown below.

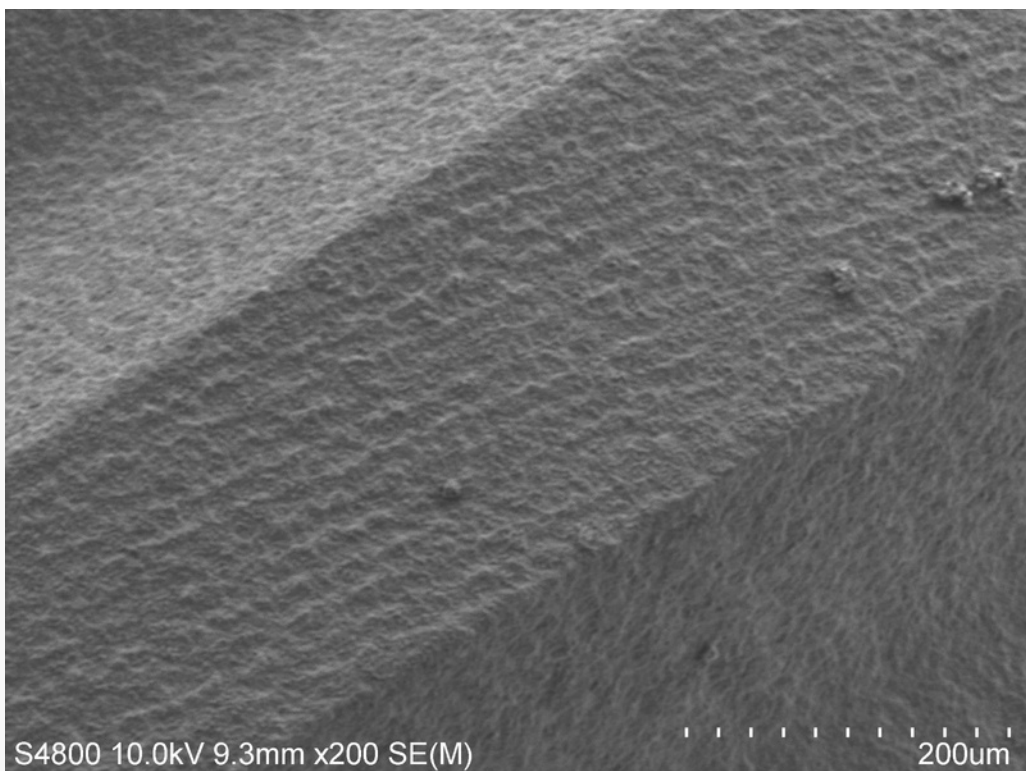
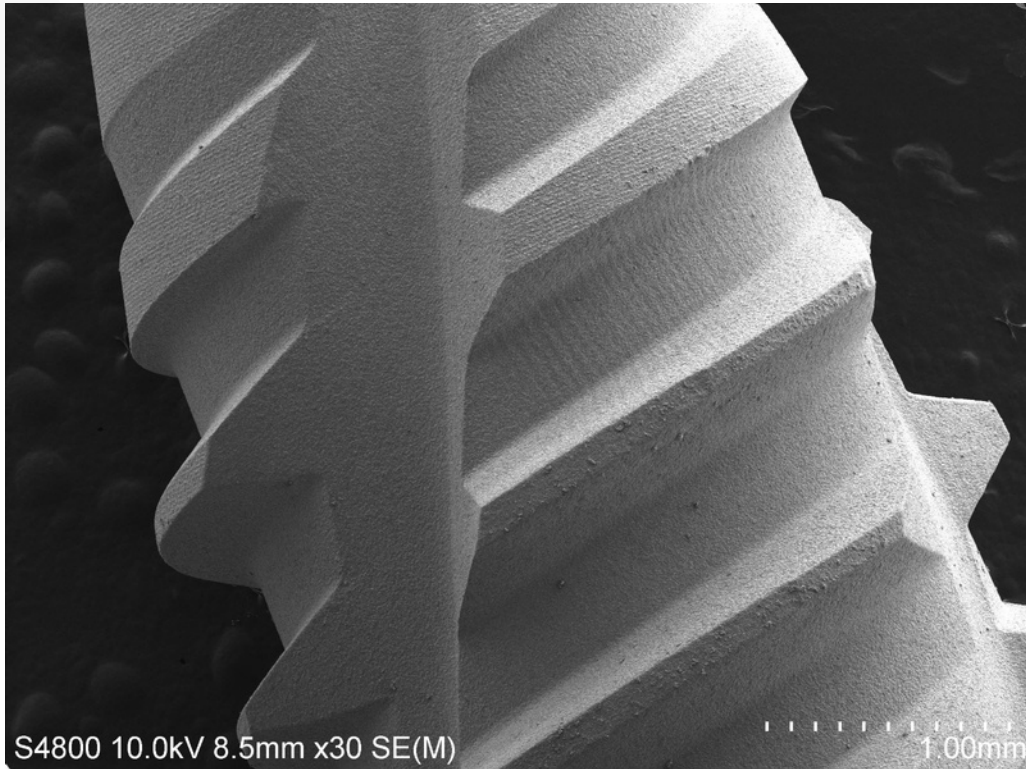
The number of pores in the image area was about 342 in image 1 and 366 in image 2.

As the image area is about 119  $\mu\text{m}^2$  there are 2.9 pores/ $\mu\text{m}^2$  in image 1 and 3.1 pores/ $\mu\text{m}^2$  in image 2.



# SEM Report

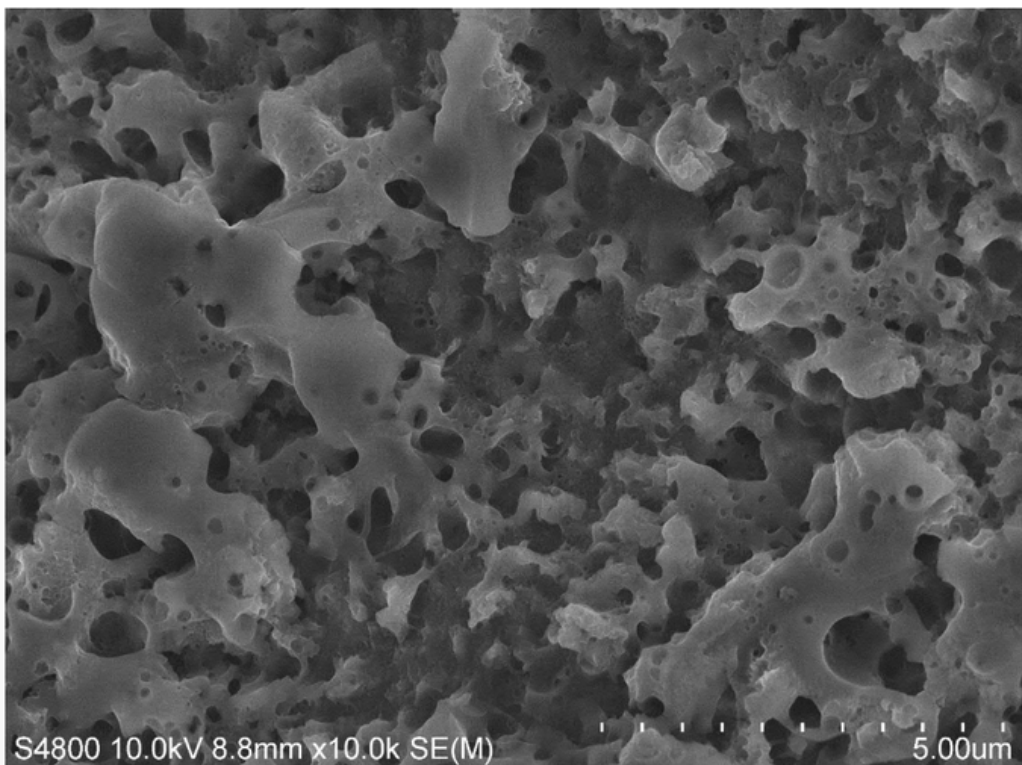
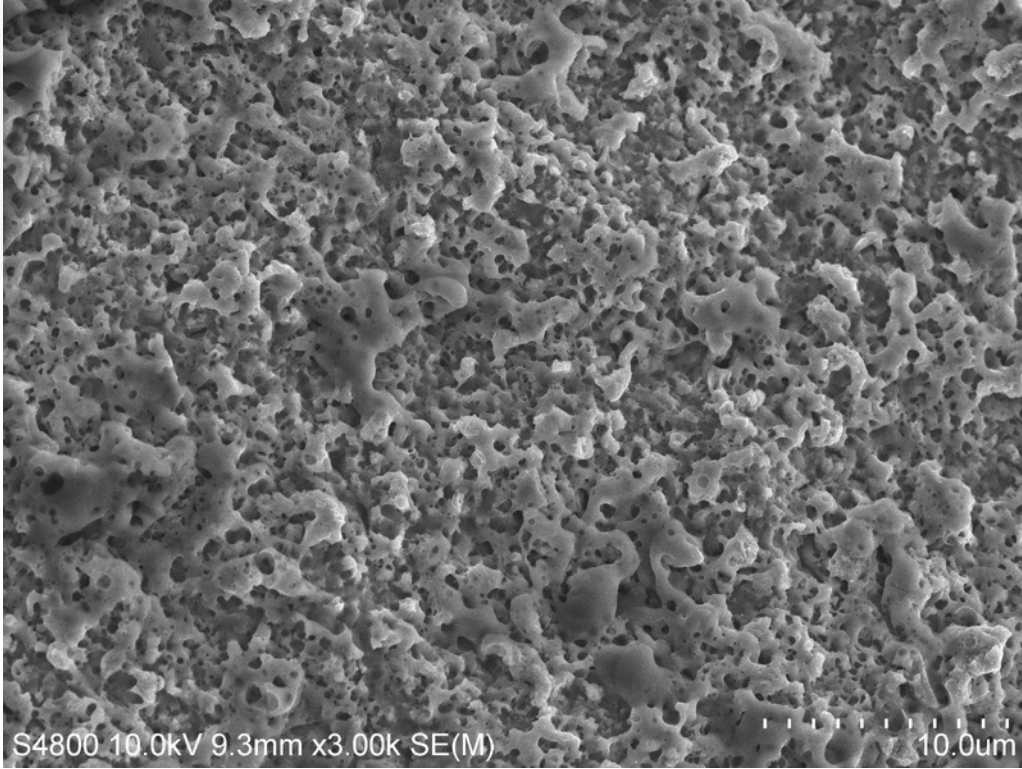
---





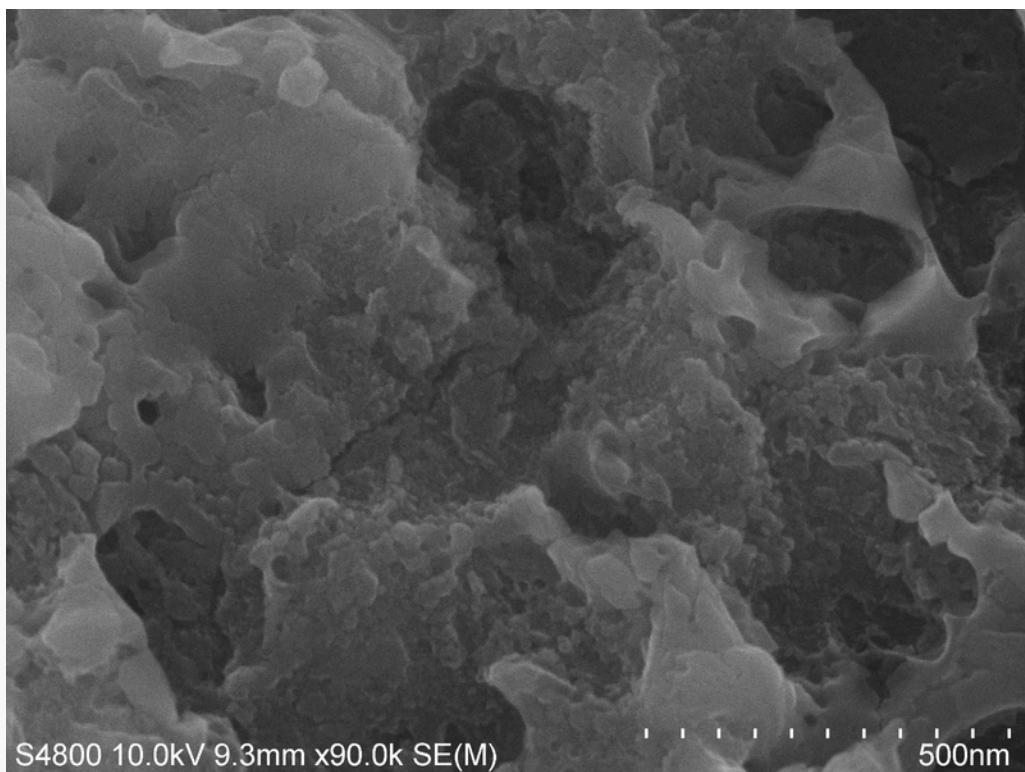
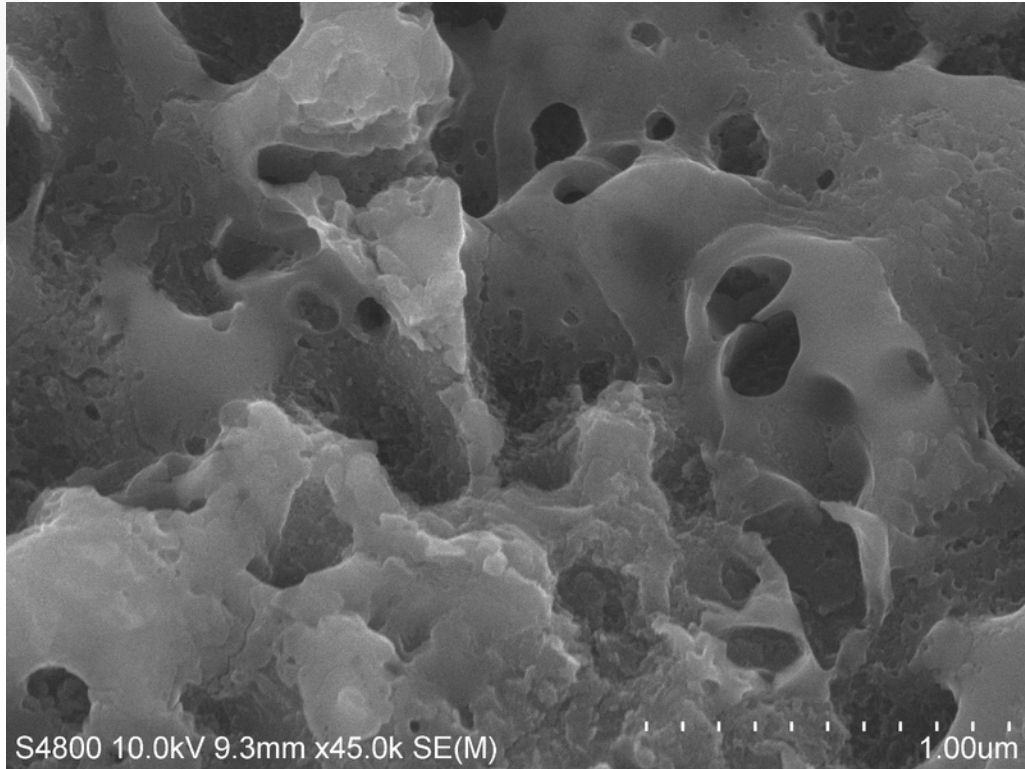
# SEM Report

---



# SEM Report

---





# Contacts

---



geneve@aiserimplants.com

Rue du Rhone, 14

VH-1204 Genève, Switzerland

+41 (0) 22 819 1709



HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

Kemian osasto, Matemaattis-luonnontieteellinen tiedekunta, 00014

Helsingin yliopisto Avdelningen för kemi, Matematisk-

naturvetenskapliga fakulteten, FI-00014 Helsingfors universitet

Department of Chemistry, Faculty of Science, FI-00014 University of

Helsinki [www.helsinki.fi](http://www.helsinki.fi)

AISERIMPLANTS.COM