

# Hierarchically structured titanium nanosurface

## Induction of self-assembly of hydroxyapatite nanocrystals on the surface

### Overview

Titanium material is widely used in artificial tooth roots and artificial bones as a lightweight material exhibiting high fracture toughness, but it does not bond with bone. Therefore, a hydroxyapatite coating used as an artificial bone has been investigated on titanium material, and various coating methods such as plasma coating and chemical coating have been investigated as techniques for this purpose. The present invention relates to a nanosurfaced titanium substrate and a method for producing the same, which can induce self-assembly of nano-needle-like crystals of hydroxyapatite on the titanium substrate more efficiently than conventional methods.

### Product Application

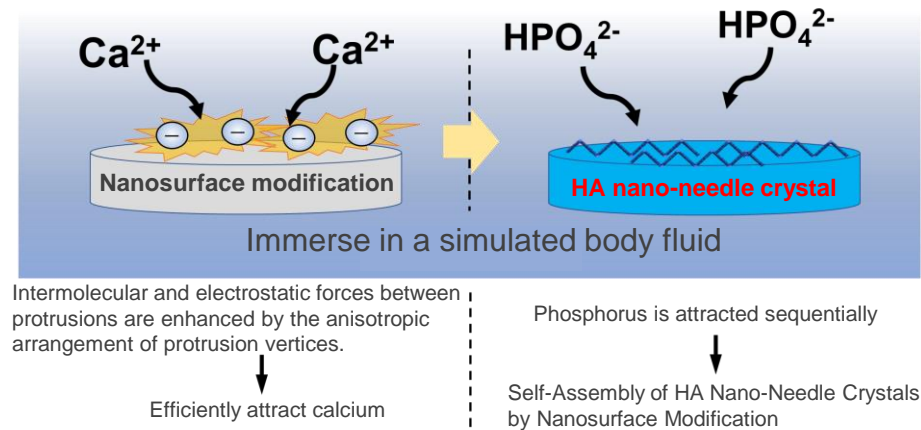
- Dental implant
- Orthopedic implant
- Photocatalyst

### IP Data

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### Features • Outstandings

Since the patent has not yet been published, please contact us at the following address for more information.



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