

# Process for Synthesis of crystalline Nano-Hydroxyapatite (*nano-HA*)

## Introduction

Crystalline nano-hydroxyapatite (*nano-HA*) which is a calcium phosphate chemical and is known for its properties resembling to natural bone in terms of chemical composition and porosity. This compound has high tendency to bear the physiological conditions present inside human body. Nano-hydroxyapatite is not only biocompatible but also favors cell proliferation thus supporting the tissue growth. It is also worth to mention that this nano-hydroxyapatite finds application not only in biomedical domain e.g bone filler for orthopedic surgeries, desensitizer, drug delivery, scaffolds, etc but is also highly desirable for applications like as air filter, catalysis, etc.

## Features

- Nano-sized
- Crystalline
- Biocompatible
- Favors cell attachment (Osteoblast viability tested with 7F2 Osteoblast (CRL 12557) cell)
- High Alkaline Phosphatase Activity
- Cyto-compatible (Tested with L929 a murine fibroblast cell lines)

## Applications

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## Status

Present TRL Level – 3-4



**In-house Synthesized Crystalline Nano-Hydroxyapatite**