

**Name: Anindya Pal**  
**Department: Dr M.N. Dastur School of Materials  
Science and Engineering**

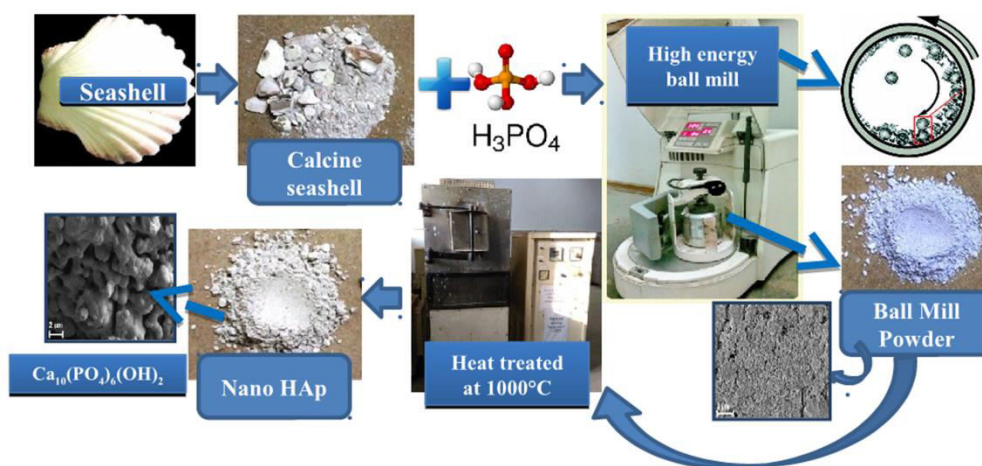
*Email: anindya19688@gmail.com*



**Highlights of his / her research (not more than 100 words).....**

The aim of the present study is to synthesis of hydroxyapatite from seashell and to explore its biocompatibility in vitro. Nano-crystalline hydroxyapatite (HAp) ceramics were successfully fabricated by a mechanochemical method using clam seashells and phosphoric acid. The CaO and H<sub>3</sub>PO<sub>4</sub> acid at different wt.% ratios were ball milled and then heat treated to complete reactions. The synthesized powders were characterized using X-ray diffraction, FTIR spectroscopy, scanning electron microscope and high resolution transmission electron microscopy. In vitro biocompatibility studies were carried out using osteoblast (MG63) and fibroblast cells (NIH3T3) demonstrated non-toxic nature of the seashell derived HAp powder.

Representative best pictures/ plot/graph with proper heading: 2 - 4 nos.



## **Publications:**

### **Publications (Peer-Reviewed Conference Papers):**

1. Anindya Pal, Shubhadeep Maity, Sumit Chabri, Supriya Bera, Amit Roy Chowdhury, Mitun Das and Arijit Sinha, "Mechanochemically synthesized nanocrystalline hydroxyapatite from Mercenaria calm shells and phosphoric acid: morphology and biocompatibility study", The International Conference on Electron Microscopy, Indian Institute of Technology (Banaras Hindu University), Varanasi, India, 2nd-4th June, 2016, pp. 91-92.
2. Anindya Pal, Shubhadeep Maity, Sumit Chabri, Amit Roy Chowdhury, Supriya Bera, and Arijit Sinha, "Synthesis of nanocrystalline hydroxyapatite from egg shell by high energy ball milling", International Conference on Frontiers in Materials Science & Technology, National Institute of Science and Technology, Berhampur, Odisha, India, 10th-12th December, 2015, pp. 169.
3. Shubhadeep Maity, Souriddha Sanyal, Anindya Pal, Sumit Chabri, Bijay Kumar Show, Arijit Sinha, and Supriya Bera, "Synthesis and Characterization Of  $\beta$ -Zr Based Alloys Prepared By High Energy Ball Milling", International Conference on Frontiers in Materials Science & Technology, National Institute of Science and Technology, Berhampur, Odisha, India, 10-12th December, 2015, pp. 172.
4. Anindya Pal, Shubhadeep Maity, Sumit Chabri, Amit Roy Chowdhury, Supriya Bera, and Arijit Sinha, "Synthesis of Nano crystalline Hydroxyapatite from Sea Shell", Young Scientists Colloquium, Materials Research Society of India (MRSI), Kolkata Chapter, India, 11th September, 2015, pp. 61-62.
5. Shubhadeep Maity, Anindya Pal, Sumit Chabri, Bijay Kumar Show, Arijit Sinha and Supriya Bera "Synthesis of  $\beta$ -Ti from High Energy Ball Milling", Young Scientists Colloquium, Materials Research Society of India (MRSI), Kolkata Chapter, 11th September, 2015, pp. 99-100.
6. Shubhadeep Maity, Anindya Pal, Sumit Chabri, Arijit Sinha, Supriya Bera, "Synthesis and characterization of Ti based biocompatible alloys prepared by high energy ball milling", Fourth International Conference on Natural Polymers, Bio-Polymers, Bio-Materials, their Composites, Blends, IPNs, and Gels: Macro to Nano Scales (ICNP-2015), Kottayam, Kerala, India. 10-12th April, 2015.
7. Anindya Pal, Shubhadeep Maity, Sumit Chabri, Amit Roy Chowdhury, Supriya Bera, Arijit Sinha, "Synthesis of Hydroxyapatite from Eggshells and Seashells", Fourth International Conference on Natural Polymers, Bio-Polymers, Bio-Materials, their Composites, Blends, IPNs, and Gels: Macro to Nano Scales (ICNP-2015), Kottayam, Kerala, India. 10-12th April, 2015.
8. Anindya Pal, Shubhadeep Maity, Sumit Chabri, Amit Roy Chowdhury, Supriya Bera and Arijit Sinha, "Processing and characterization of Ti based biocompatible alloy prepared by high energy ball milling", The First International Conference on Emerging Materials: Characterization & Application, EMCA-2014, Kolkata, India, December 4-6, 2014, pp. 89.
9. Anindya Pal, Shubhadeep Maity, Sumit Chabri, Amit Roy Chowdhury, Supriya Bera and Arijit Sinha, "Development and Characterization of HAp dispersed Ti-based Bulk Metallic Glass Composite", 52nd National Metallurgists' Day and 68th Annual Technical Meeting of the Indian Institute of Metals (IIM), Department of Metallurgy And Material Science, College of Engineering, Pune- 411005, Maharashtra, India, 12-15th November, 2014, pp. 20-21.

**Publications (Conference Proceeding):**

1. SMART Technologies for Natural Resource Conservation and Sustainable Development, 31st Indian Engineering Congress, Kolkata 2016 and The Institution of Engineers (India), 274-277.

**Publications (Journal Papers):**

1. Anindya Pal, Shubhadeep Maity, Sumit Chabri, Supriya Bera, Amit Roy Chowdhury, Mitun Das, Arijit Sinha, Mechanochemical synthesis of nanocrystalline hydroxyapatite from Mercenaria clam shells and phosphoric acid, Biomed. Phys. Eng. Express, 3 (2017) 015-010.