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Synthesis and Investigation of Biphasic Calcium Phosphate Granules

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Synthetic calcium phosphates (CaPs) have been widely utilized for medical and dental applications such as dental implants, alveolar bridge augmentation, orthopedics, and drug delivery systems due to their biocompatibility, and chemical and biological affinity with bone tissue [1]. These materials are vitally needed by thousands of patients every year [2]. Recently it was found that the main inorganic compounds of human hard tissue are hydroxyapatite (HAP) and magnesium whitlockite (WH) [3]. In our study, we synthesized biphasic materials consisting of various amounts of carbonated hydroxyapatite (CHA) and WH phases to obtain the one mimicking the chemical composition of the inorganic part of native bone.

References

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