Electronic Supplementary Material (ESI) for RSC Advances.

Development of porous and antimicrobial CTS-PEG-HAP-ZnO nano-composites for bone tissue engineering

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ESI 1: Fig 1 FT-IR of (a) ZnO NPs (b) nano-HAP-ZnO

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ESI 1

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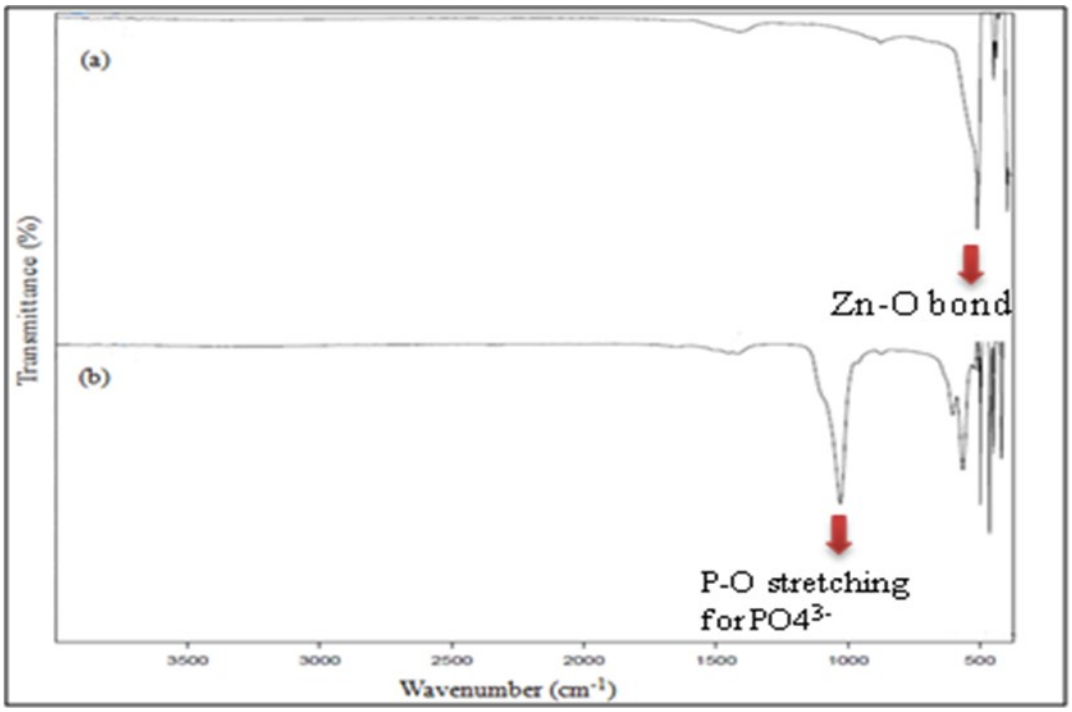

Fig 1 FT-IR of (a) ZnO NPs (b) nano-HAP-ZnO

ESI 2

Table 1 FT-IR absorption band of individual components and CPHZ I-III

CTS[26]	**Nano-HAP[26]**	**PEG**	**ZnO NPs**	**Nano-HAP-ZnO**	**CPHZ I**	**CPHZ II**	**CPHZ III**	**Assignments**
3432	3571		-	-	3300-3350			OH Stretching
2942	-	2942	-	-	2936	2932	2937	CH aliphatic stretching
~2873	-	~2873	-	-	2871	2875	2872	CH aliphatic stretching
1653	-		-	-	1634	1637	1632	CO stretching (Amide I)
1574	-		-	-	1576	1574	1575	NH bending (Amide I)
1161	-		-	-	1142	1147	1144	Antisymmetric vibration
~1078	-	~1078	-	-	1066	1059	1065	of C-O-C
-	1090-962		-	1092-964	1132-979	1130-974	1128-970	P-O stretching for $PO4^{3-}$
-	-	-	473	464	472	471	475	Zn-O bond

ESI 3

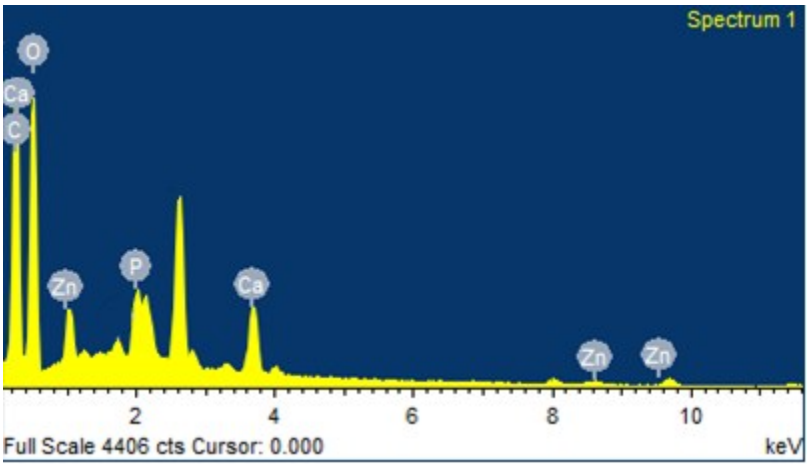

Fig. 2 EDS spectrum of CPHZ I

ESI 4

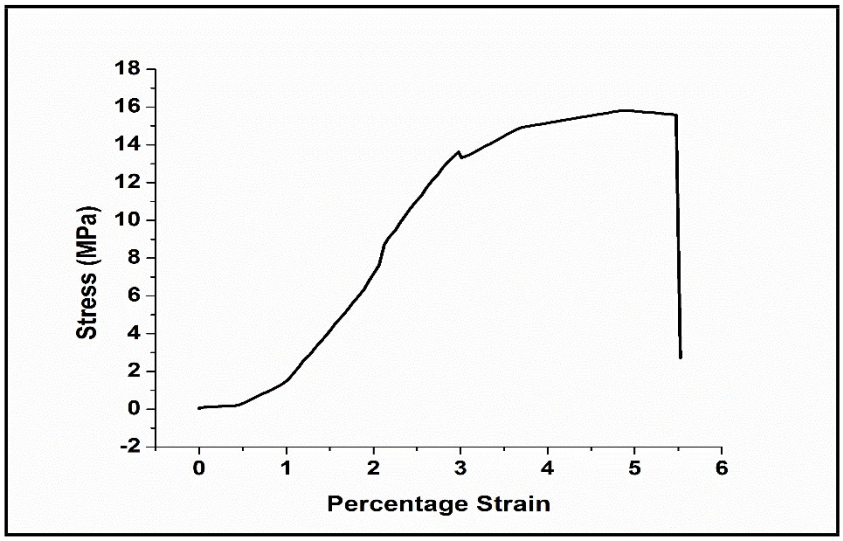

Fig. 3 Stress-strain graph of CPHZ I

ESI 5

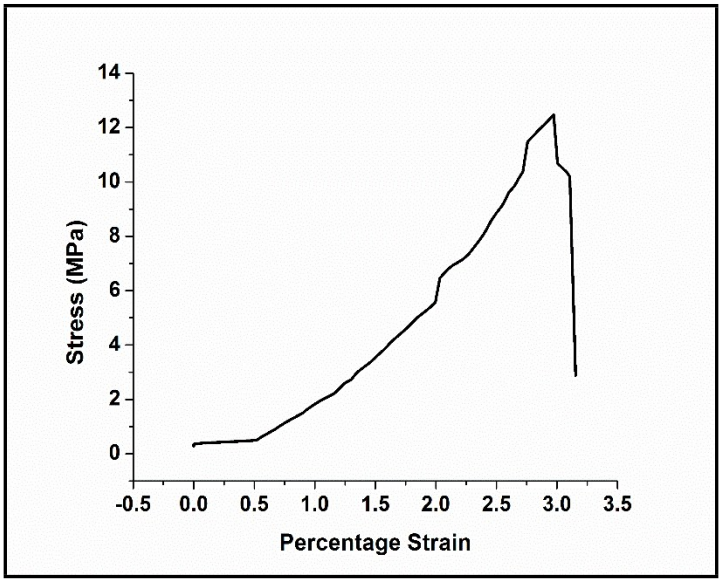

Fig. 4 Stress-strain graph of CPHZ II

ESI 6

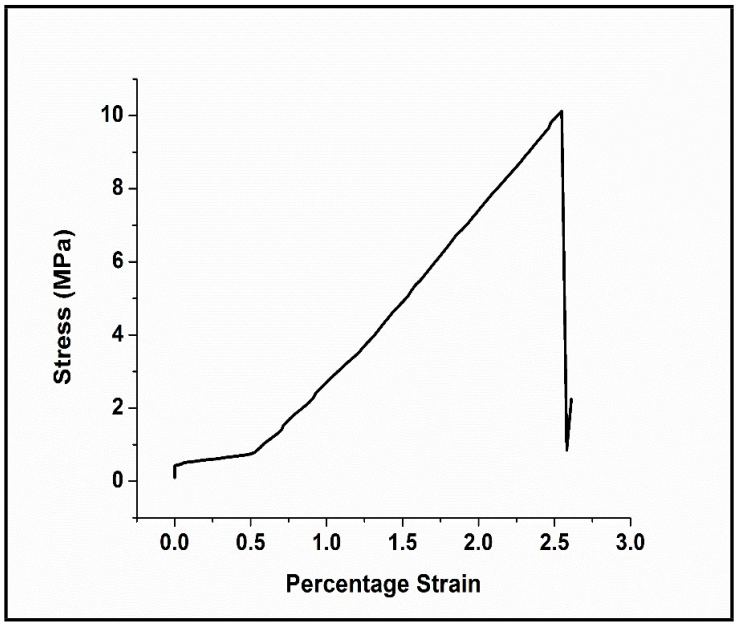

Fig. 5 Stress-strain graph of CPHZ III