

RESEARCH ARTICLE

Black phosphorus scaffolds for efficient bone defect repair via anti-inflammatory, osteogenic, and photothermal therapeutic effects

Supplementary file

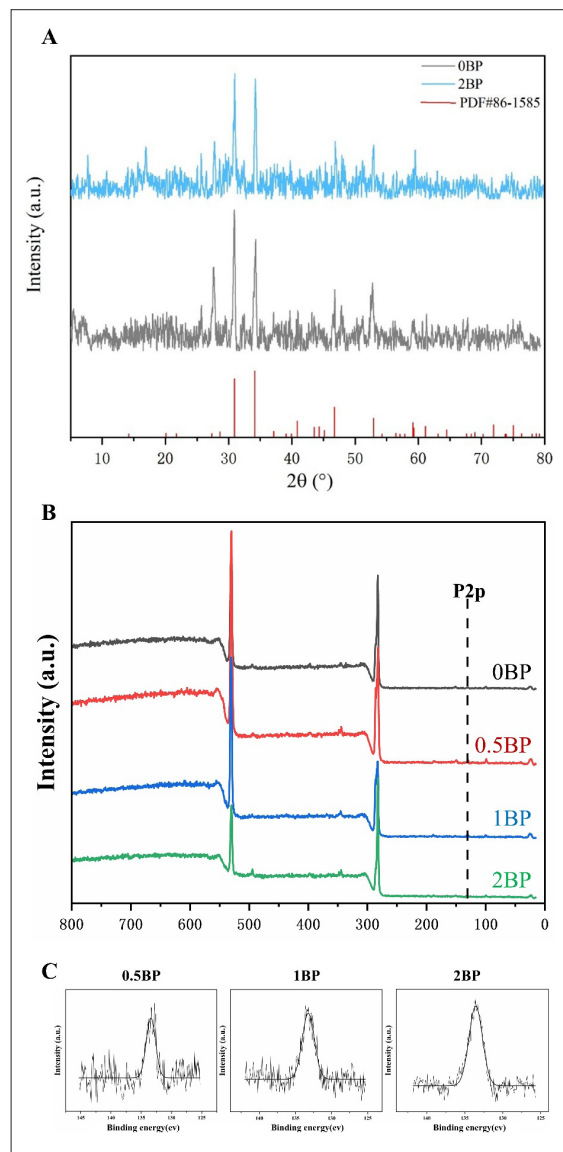


Figure S1. Characterization of BP-containing scaffolds. (A) X-ray diffraction of 0BP and 2BP. (B) X-ray photoelectron spectroscopy (XPS) of 0BP, 0.5BP, 1BP, and 2BP. (C) High-resolution XPS spectra of 0.5BP, 1BP, and 2BP. 0BP, 0.5BP, 1BP, and 2BP represent scaffolds containing 0%, 0.5%, 1%, and 2% BP by mass, respectively.

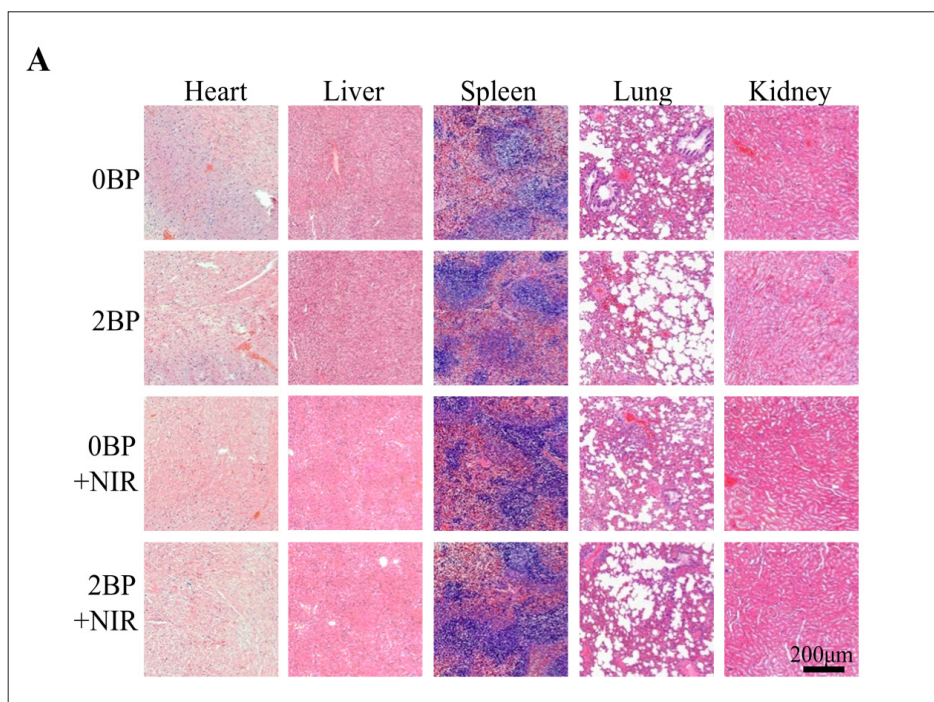


Figure S2. *In vivo* biocompatibility analysis. Hematoxylin and eosin staining of major organs harvested from animals after six weeks of feeding (scale bar: 200 µm; magnification: 200×).

Table S1. Primer sequences for quantitative reverse transcription polymerase chain reaction

Primer name	Forward primer (5'-3')	Reverse primer (5'-3')
Lncpint	AGAGCAAAGCGGTGTAGTGT	CATCAGCAAGGCAGAGAGGT
Chac1	CCTGACTTTGCCTACAGCGA	CAGGAACATGGGCAGGTGAT
Kcnq1ot1	AGGGGCGAAGTAAAGTTG	GTACAGAGCAGGCAGCAGAA
Vmp1	GGTGTGAGAGTCGGTGTGT	ATGGCTCCTTCAGTGCCTTC
Hmox1	ACGTAAAGCGTCTCCACGAG	GTCAACATGGACGCCGACTA
Grem1	GACAGAATGAATCGCACGGC	CGTTTCAGGTATTTGCGCTC
Sqstm1	CTGAGTCGGGCATCGAGGTT	GAGATGTGGGTACAGGGCAG
Egr1	ACTCCTTCAGCACCTCAACG	CACAAAGGCACCAAGACGTG
Irf9	ATCCTCGGTCGCTCAGGATG	TCCTCTGAACGGTGGCTTC
β-actin	CCCGCGAGTACAACCTTCTT	AACACAGCCTGGATGGCTAC