

# Particle

& Particle Systems Characterization

## Supporting Information

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Monodispersed Bioactive Glass Nanoparticles Enhance the Osteogenic Differentiation of Adipose-Derived Stem Cells through Activating TGF-Beta/Smad3 Signaling Pathway

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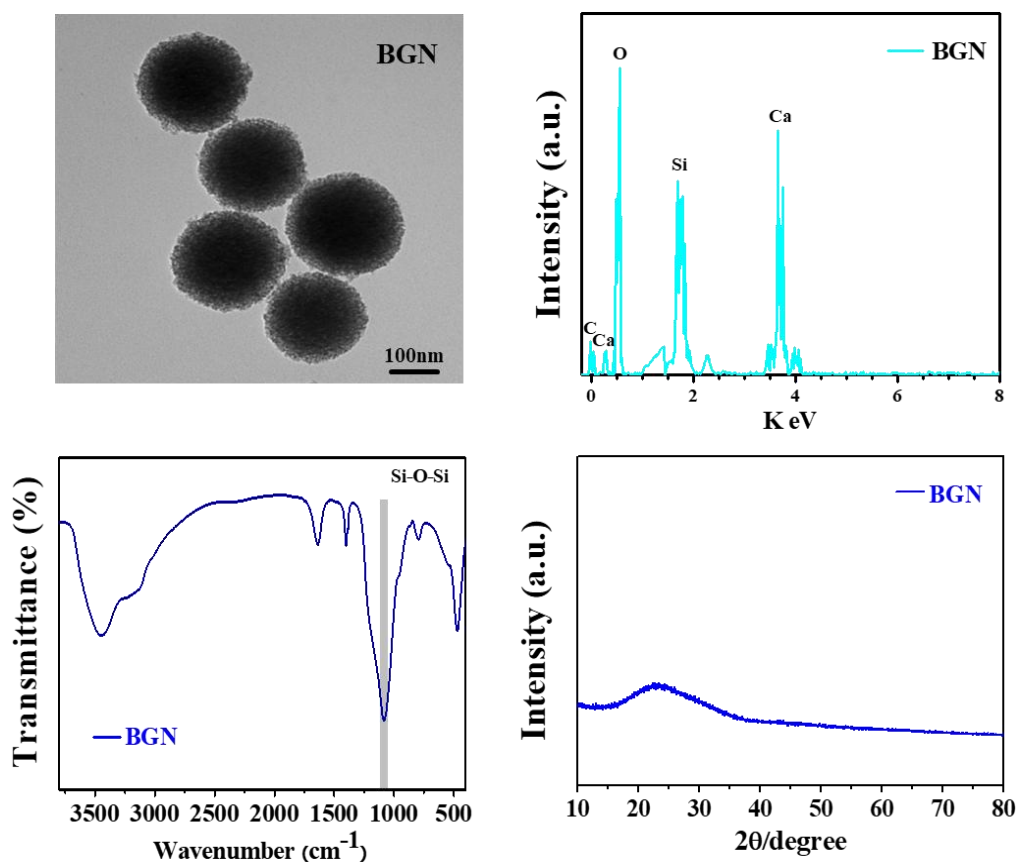
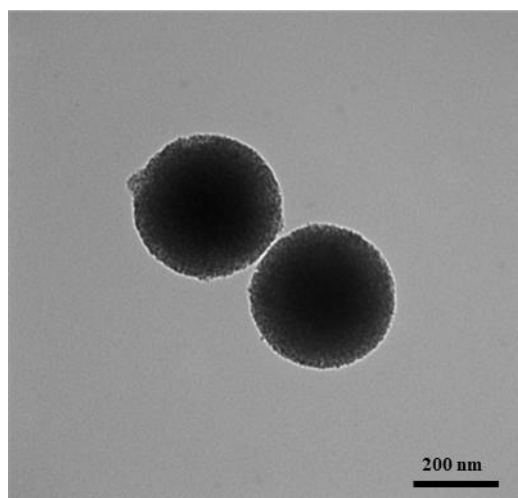


Figure S1. Characterization of bioactive glass nanoparticles (BGN). (A) Transmission electron microscopy (TEM) of synthesized BGN (scale bar: 100 nm). (B) EDS image of BGN. (C) FT-IR spectrum of BGN (D) X-ray diffraction (XRD) pattern of BGN.



**Figure S2. Transmission electron microscopy (TEM) of synthesized 5% Zn-BGN (scale bar: 200 nm).**

**Table S1. Particles size and zeta potential of Zn-BGN and BGN**

Samples	Particle size (nm)	Zeta potential ( $m^3 g^{-1}$ )
5% Zn-BGN	374.53±33.08	-14.7±0.182
BGN	389.6±26.34508	-12±1

**Table S2. Real-time quantitative PCR primers**

Genes	Forward primer (5'-3')	Reverse primer (5'-3')
<i>Gapdh</i>	AGGTCGGTGTGAACGGATTTG	TGTAGACCATGTAGTTGAGGTCA
<i>Runx2</i>	TCTTCCCAAAGCCAGAGCG	TGCCATTCGAGGTGGTTCG
<i>Opn</i>	CAGGTGAAGGAGAGAGCGTC	CACTAGGAGCGGTGGTTGTC