Supplementary File

ENHANCED ANTIMICROBIAL ACTIVITY OF BIOFUNCTIONALIZED ZIRCONIA NANOPARTICLES

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		Mean (mV)	Area (%)	St Dev (mV)
Zeta Potential (mV): -1.78	Peak 1:	-1.78	100.0	3.68
Zeta Deviation (mV): 3.68	Peak 2:	0.00	0.0	0.00
Conductivity (mS/cm): 0.0796	Peak 3:	0.00	0.0	0.00
Result quality : Good				

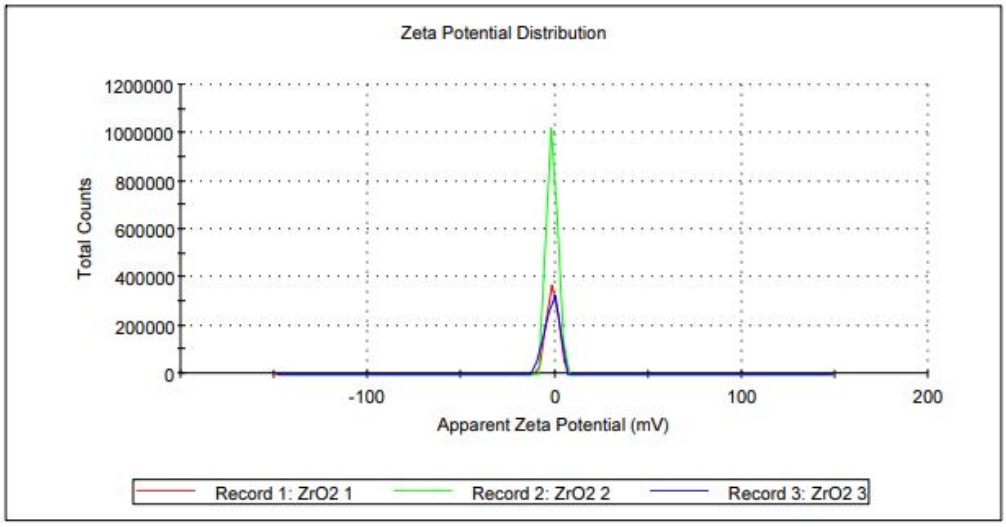

Figure S1: zeta potential plots of ZrO_2

		Mean (mV)	Area (%)	St Dev (mV)
Zeta Potential (mV): -11.9	Peak 1:	-11.9	100.0	8.80
Zeta Deviation (mV): 8.80	Peak 2:	0.00	0.0	0.00
Conductivity (mS/cm): 2.16	Peak 3:	0.00	0.0	0.00
Result quality : See result quality report				

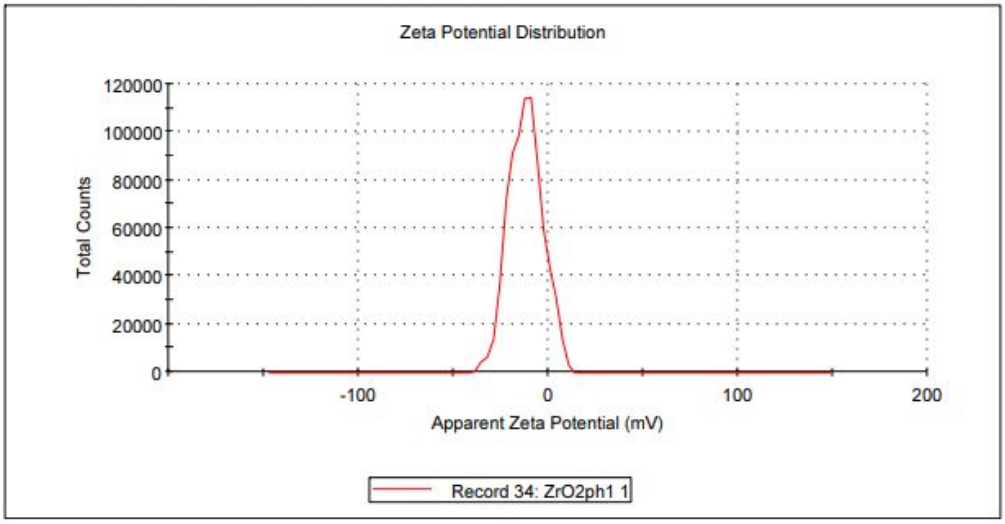

Figure S2: Zeta potential plots of ZrO_2 at pH 8

			Mean (mV)	Area (%)	St Dev (mV)
Zeta Potential (mV):	-1.33	Peak 1:	42.2	39.8	15.1
Zeta Deviation (mV):	84.2	Peak 2:	8.05	22.8	6.21
Conductivity (mS/cm):	0.0203	Peak 3:	-9.06	19.4	7.22
Result quality :	See result quality report				

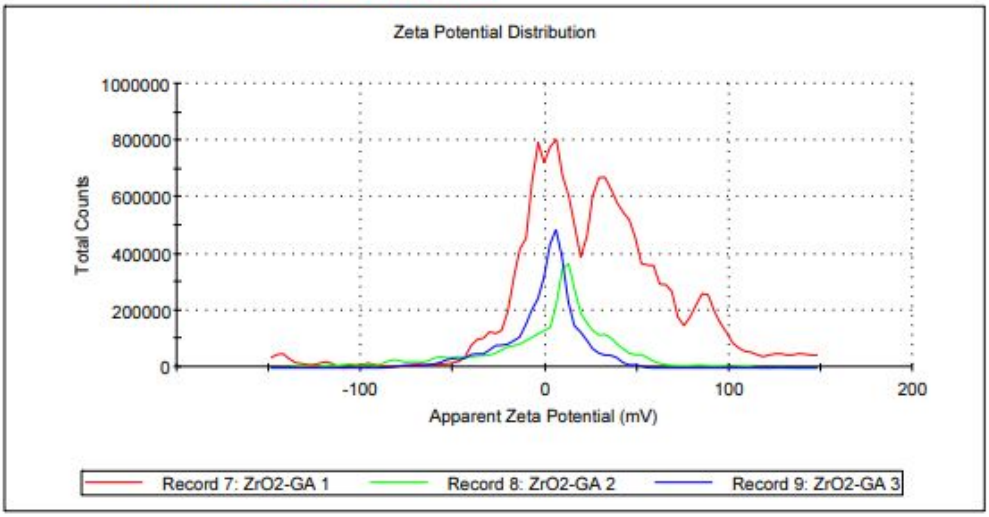

Figure S3: Zeta potential plots of GA-ZrO_2

			Mean (mV)	Area (%)	St Dev (mV)
Zeta Potential (mV):	-33.9	Peak 1:	-33.9	99.9	7.44
Zeta Deviation (mV):	7.63	Peak 2:	-79.6	0.1	9.54e-7
Conductivity (mS/cm):	0.741	Peak 3:	0.00	0.0	0.00
Result quality :	See result quality report				

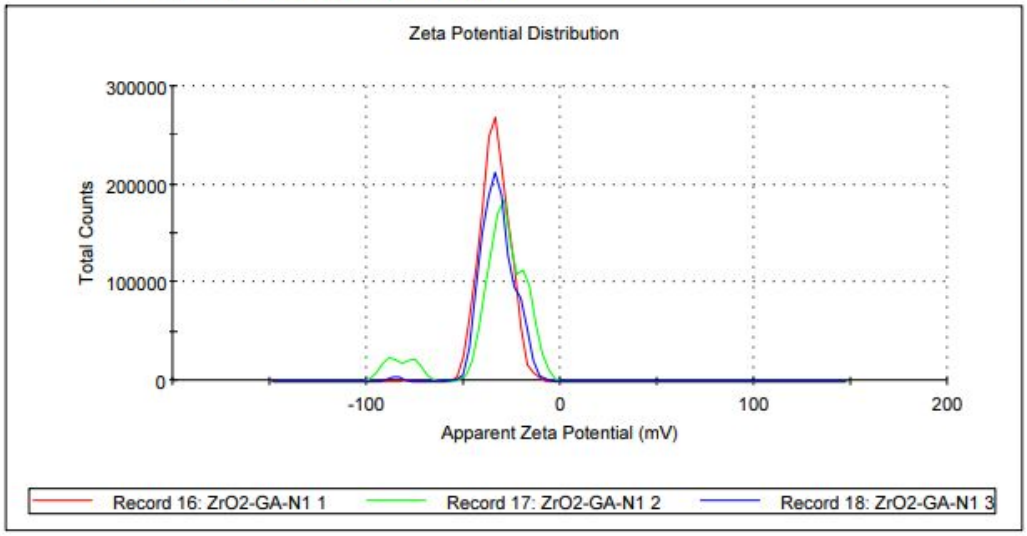

Figure S4: Zeta potential plots of GA-ZrO_2 at pH 8

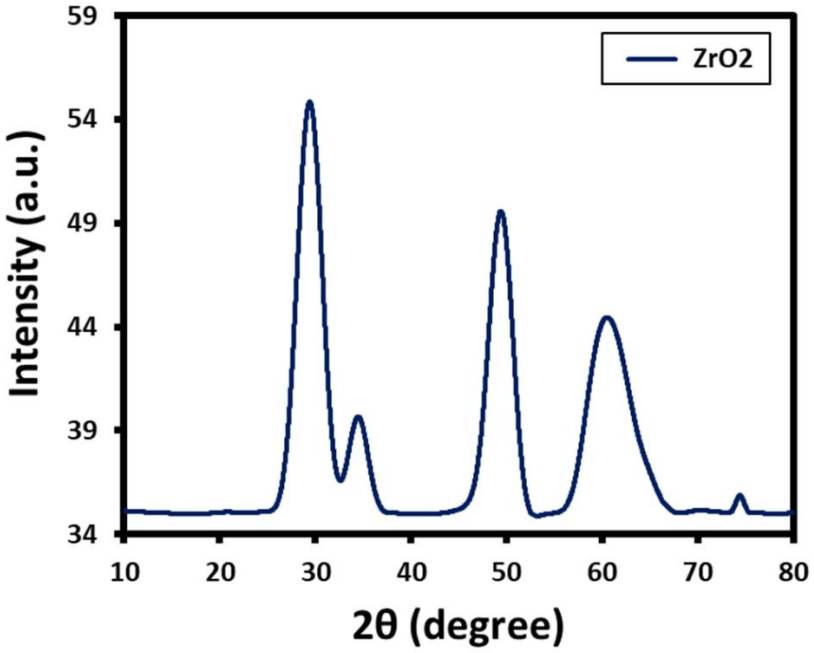

Figure S5: XRD pattern of ZrO2

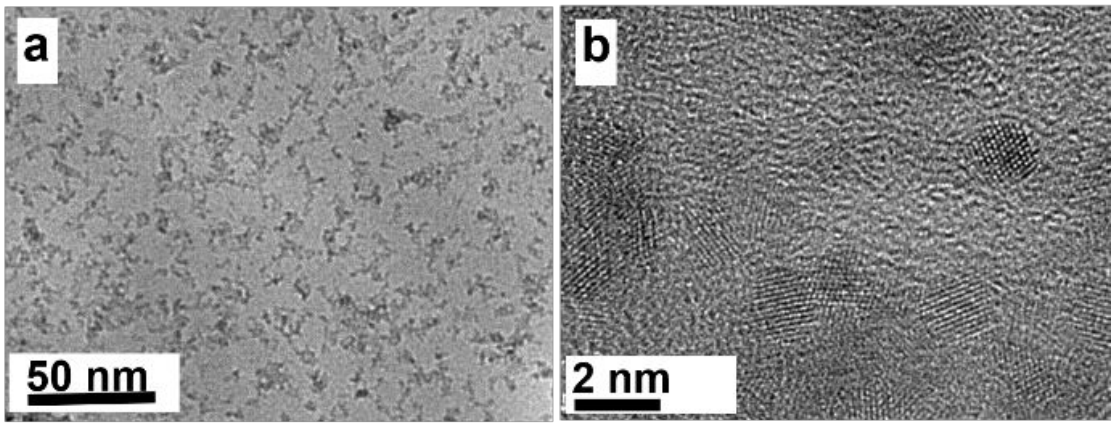

Figure S6: TEM images of pure ZrO_2 NPs (a,b) different resolution.