

Table S1 The value of electronegativity of different elements in metal oxides

Name of compound	Difference in Electronegativity (δE)	Remarks
MgO	$3.44-1.31 = 2.13$	If $\delta E > 2.0$, the bond is considered ionic
CuO	$3.44-1.65 = 1.79$	
ZnO	$3.44-1.9 = 1.54$	
MnO ₂	$3.44-1.55 = 1.89$	
Ag ₂ O	$3.44-1.93 = 1.51$	
TiO ₂	$3.44- 1.54 = 1.9$	

Table S2 The value of parameters of the Weibull model fit in the magnesium ion release from magnesium oxide nanoparticle

Parameter	Value
Td	3.20367
b	1.33852