

Table S1. Effects of Mg NPs/GW on mitotic abnormalities in *Allium cepa*.

Replicate s	Concentratio n of Mg NPs/GW (g/L)	Number of counted cells	Normal metaphas e	Normal anapha se	Sticky chromoso me	Laggard Chromosom e	Chromoso mal bridge	Disturbed metaphase
R 1	Control	1000	+	+	–	–	–	–
R 2	(deionized	1000	+	+	–	–	–	–
R 3	distilled	1000	+	+	–	–	–	–
R 4	water)	1000	+	+	–	–	–	–
R 5		1000	+	+	–	–	–	–
R 1		1000	–	+	–	+	+	+
R 2	Nanoparticle	1000	+	+	+	–	–	+
R 3	(0.5)	1000	–	+	+	+	–	–
R 4		1000	+	+	–	–	+	–
R 5		1000	+	+	+	–	–	+
R 1	Nanoparticle	1000	+	+	+	–	+	+
R 2	(1.0)	1000	+	+	+	+	+	+
R 3		1000	+	+	+	+	–	+
R 4		1000	+	+	+	+	–	–
R 5		1000	+	+	+	–	+	+
R 1	Nanoparticle	1000	+	+	+	+	+	+
R 2	(5.0)	1000	+	–	+	+	+	+
R 3		1000	+	–	+	+	+	+
R 4		1000	–	–	+	+	+	+
R 5		1000	+	–	+	+	+	+

Table S2. Effects of Mg NPs/GW on mitotic cell division in *Allium cepa*

Replicates	Concentration of Mg NPs/GW (g/L)	Dividing cell (total)	Prophase	metaphase	Anaphase	Telophase	Mitotic index (%) *	Mean± SE (%) **
R 1	Control	458	450	3	5	0	45.8	44.6±
R 2	(deionized	480	471	4	4	1	48.0	2.16%
R 3	distilled	386	380	2	3	1	38.6	
R 4	water)	501	493	3	5	0	50.1	
R 5		405	400	2	1	2	40.5	
R 1		546	530	12	4	0	54.6	61.24±
R 2	Nanoparticle	627	600	16	8	3	62.7	1.79%
R 3	(0.5)	605	590	11	3	1	60.5	
R 4		639	625	9	4	1	63.9	
R 5		645	640	4	1	0	64.5	

R 1	Nanoparticle (1.0)	373	370	1	2	0	37.3	36.96± 0.86%
R 2		392	390	1	1	0	39.2	
R 3		354	350	2	1	1	35.4	
R 4		346	340	2	3	1	34.6	
R 5		383	380	1	2	0	38.3	
R 1	Nanoparticle (5.0)	282	280	1	1	0	28.2	27.36± 1.34%
R 2		278	277	1	0	0	27.8	
R 3		317	315	2	0	0	31.7	
R 4		250	250	0	0	0	25.0	
R 5		241	240	1	0	0	24.1	