

Supplementary Information

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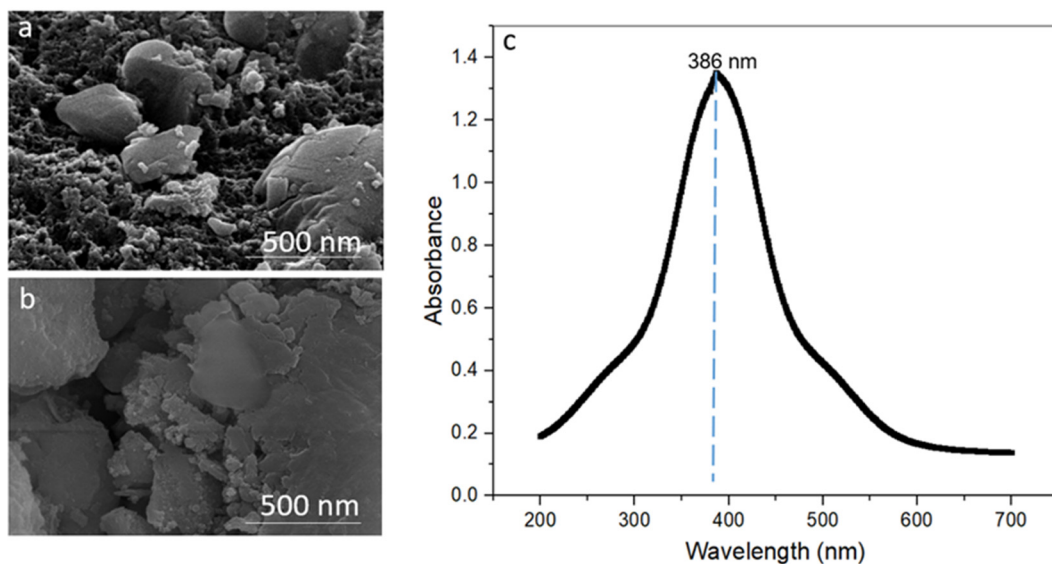


Figure S1. Topography images were evaluated using FESEM. (a) silica nanoparticles (b) graphene. (c) Absorption curve for Arsenic (iii). The wavelength range was selected and used for adsorption analysis using UV-Vis measurement.

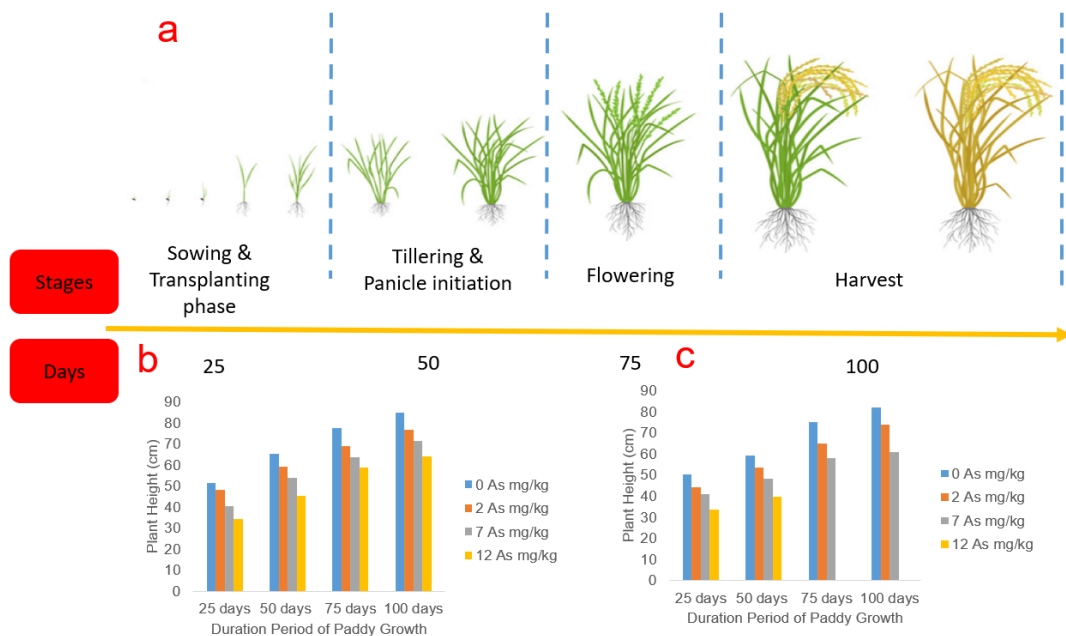


Figure S2. (a) In pot experiment analysis MR 220 CL2 was chosen as variety. This variety has maturity period for 100 days before ready for harvesting. Thus, the growth of this variety consists of four important phases which is sowing and transplanting (25 days), tillering and panicle initiation (50 days), Flowering (75 days) and Harvesting (100 days). In this analysis, plant height measurement was taken to determine the correlation between concentration of arsenic applied and treatment with (a) Silica Nanoparticles (b) Graphene.