

INTERACTION OF METAL NANOPARTICLES AND PLANT SYSTEMS

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We have studied the effects of various stress factors on living systems for many years [1-5]. In our recent studies, we have conducted experiments with the wheat (*Triticum L.*) plant. EPR spectra of root parts of wheat sprouts germinated under control and different conditions (watered with suspension made of Al, Cu and Fe nanoparticles) were recorded. Along with free radical signals ($g=2.0023$), high-intensity signals characterizing iron oxide magnetic nanoparticles ($g=2.34$) were recorded in the spectra. Compared to the control samples, it was found that more iron oxide magnetic nanoparticles were generated in samples using nanoparticles, especially Fe nanoparticles.

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