

Studies on the Mechanism of Proteins in Rape for Cadmium Phytoremediation

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Abstract

Phytoremediation is one of effective techniques that remove cadmium from the environment by green plants. However, the roles of proteins involving Ca phytoremediation were not understood till now. This studies were conducted to evaluate the the roles of proteins played on the process of cadmium phytoremediation in rape. The rapes were cultivated in the hydroponic solution containing 0, 10 and 30 $\mu\text{mol L}^{-1}$ CdCl₂ for 72 hours, and then the proteins in stems were estimated. The results showed that some proteins played the roles on antioxidative and conservation of roots. And some proteins played the roles of glycolysis and tricarboxylic acid to produce energy and chelating of cadmium, they causing the tansorption of cadmium from root to stem. In the conclusion, The studies on proteins of cadmium phytoremediation can be the clue for the advanced improvement of phytoremediation.

Key words: Rape, Cadmium, Phytoremediation, Proteins.

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