

Transcription Profiling of the Metal-hyperaccumulator *Thlaspi caerulescens* (J. & C. PRESL)

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Thlaspi caerulescens is a well-studied metal-hyperaccumulator of zinc, cadmium and nickel, belonging to the Brassicaceae family. Moreover it is one of the few hyperaccumulators that occur on different metalliferous soil types, as well as on nonmetalliferous soils. We are interested in the development of systems to improve phytoremediation of metal contaminated soils through improved metal-accumulation. About 1900 cDNAs isolated from *T. caerulescens* roots were hybridized with reverse transcribed RNA from zinc-treated *T. caerulescens* plants of two accessions originating from two different soil types. This comparative transcript profiling of *T. caerulescens* plants resulted in the identification of genes that are affected by heavy metals. The developed microarray proved to be an appropriate tool for a large scale analysis of gene expression in this metal-accumulator species.

Key words: *Thlaspi caerulescens*, Zinc Hyperaccumulation, Microarray