

**PROTEOMIC ANALYSIS OF LIGHT STRESS RESPONSE IN
*ARABIDOPSIS THALIANA***

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Strong light causes the formation of oxygen radicals in chloroplasts and has the potential to damage them. However, plants are able to respond to this stress by various means including transcriptional regulation and expression of proteins. We have studied this light damage response by proteomic approach. Proteins extracted from *Arabidopsis* seedlings grown under low and high light conditions were separated by 2-dimensional gel electrophoresis. Up-regulated or down-regulated proteins were analyzed by MALDI-TOF mass spectrometry. Fourteen proteins were identified, that two proteins were hypothetical and other proteins were involved in stress signalling and defense mechanism. Specifically, chaperonins that reported to increase by heat shock and light stress were identified.