

# Responses of the Lichen *Cladonia convoluta* to High CO<sub>2</sub> Level and Heavy Metal Treatment

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Z. Naturforsch. **54c**, 797–801 (1999); received November 15, 1998/March 5, 1999

Cadmium, Lead, Fluorescence, Respiration, Photosystem II

Despite of the downward acclimation of photosynthesis in *C. convoluta*, increased net photosynthesis and carbon balance can be anticipated in response to elevated atmospheric CO<sub>2</sub> level. CO<sub>2</sub> exchange measurement seems to be more indicative when detecting heavy metal stress than fluorescence parameters. Among these, the relative fluorescence decrease ratio (RFd690) shows damage first, suggesting that the primary attack site for heavy metal ions is CO<sub>2</sub> fixation and reaction centres are harmed last. Long-term elevated CO<sub>2</sub> ameliorates partly this damage by improving C-balance to a greater extent in the heavy-metal stressed lichens.