

Gaffron, H., Über die Unabhängigkeit der Kohlensäureassimilation der grünen Pflanzen von der Anwesenheit kleiner Sauerstoffmengen und über eine reversible Hemmung der Assimilation durch Kohlenoxyd. Biochem. Zeitschr. 280, 337—359 (1935).

Using *Cyclamen europaeum* and *Polytrichum junip.* leaves in oxygen free medium with a 7,5 % CO₂ — N₂ vapor Gaffron studies the uptake of CO₂ with a light of known intensity and shows that the longer the cells have been in an O₂ free medium, the slower is the initial CO₂ uptake upon illumination.

Using the alga *Scenedesmus* data are given on CO₂ assimilation which shows that in an O₂ free medium the CO₂ uptake is greater than in air.

Curves show that CO will, in certain quantities, reversibly stop CO₂ assimilation in light. Much of this work has been done in alkaline bicarbonate buffers. With CO in *Scenedesmus* it is possible to stop photosynthesis and keep respiration going.

The idea underlying this is that chlorophyll is the controlling factor in the CO₂ assimilation process. The author speaks of chlorophyll fluorescence which is an indication of the fact that the proper number of light quanta are being absorbed thereby controlling the CO₂ input. According to figures of Emerson and Arnold 2500 chlorophyll molecules are required for the reduction of 1 CO₂ molecule. Molecular O₂ is not required for the initiation of photosynthesis.

M. M. Brooks (Berkeley).

Hurd-Karrer, Annie M., Rb and Sr Toxicity to Plants Inhibited by K and Ca Respectively. J. Washington Acad. Sci. 27, 8 (1937).

Using wheat and barley grown in a nutrient medium with RbCl + KCl and without KCl, also in SrCl with and without Ca, the author finds that 60 p. p. m. of Rb can be detected by observing root injury — but when 120 p. p. m.¹⁾ of KCl were present no injury was detectable.

In Sr⁺⁺ alone plants were stunted and with 500 p. p. m. Sr⁺⁺ + 50 p. p. m. Ca⁺⁺ the effect was great. With same amount of Sr but with 500 p. p. m. Ca⁺⁺ there was no effect.

M. M. Brooks (Berkeley).

Boratynski, K. and H. Burström, Cu and Mn Absorption of Wheat at Different pH. Polish Agr. For. Ann. 38, 149—169 (1937).

A pH increase from 3,5 to 7 increases Cu absorption. Mn absorption is less dependent on pH. K absorption is unaffected by small amounts of Mn but is 0 at pH 3,8.

M. M. Brooks (Berkeley).

Went, F. W., Salt accumulation and the Transportation of Polar Hormones. Sci. 86, 127—128 (1937).

β -indolacetic acid and ions accumulated from the exterior according to a logarithmic curve up to quantities of 1 mg. After this the rate declined with increased external concentration.

M. M. Brooks (Berkeley).

¹⁾ p. p. m. = Parts per million.