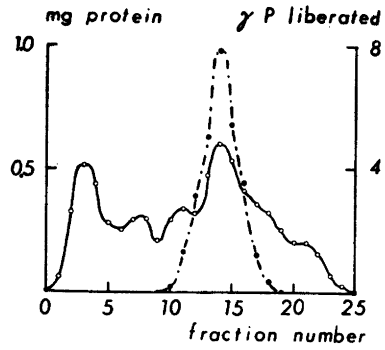

Fig. 1. Electrophoresis of the enzyme preparation. O—O *protein.* ●— —● *phosphatase activity, expressed as γ P liberated.*

yield was, however, 62 % and the enrichment in fraction number 14 was 1.85.

The possible inactivation of the enzyme during the electrophoresis due to the loss of coenzyme or to instability at the alkaline pH used, as well as the purity of the isolated enzyme, is subject to further investigations.

It has come to the author's knowledge that a similar device for electrophoresis has been developed by Drs. P. Flodin and J. Porath at the Institute of Biochemistry, Uppsala, Sweden. (*Biochim. et Biophys. Acta* **13** (1954) 175).

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Homoserine and α-Aminoadipic Acid in Green Plants

ANN-MARIE BERG SIGRID KARI, MAGNUS ALFTHAN and ARTTURI I. VIRTANEN

Laboratory of the Foundation for Chemical Research, Biochemical Institute, Helsinki, Finland

L(+)-*Homoserine* was found in this laboratory for the first time in pea plants *(Pisum sativum)* one year ago [1]. Homoserine seemed to be lacking in the seeds but has now by using more concentrated extracts been detected in very small amounts also in non-germinating seeds. During germination [2] it is formed surprisingly quickly, attaining in 3 days about the 200 fold amount. It is later on found in all parts of the plants. According to estimations made in this laboratory homoserine is not found only in *Pisum* but seems to be a relatively common free amino acid in smaller concentrations in the plant kingdom. So far we have found it in the following plants: in the young plants of *Trifolium pratense*, in the leaves of *Acacia pentadena, Asplenium nidus, Begonia* sp., *Eucalyptus globulus, Hibiscus* and *Coleus Rehneltianus, Rhododendron* sp., *Taxus baccata* and *Peperomia rhombae*, in the leaves and the root of the apple-tree (K. Oland in this laboratory), and in the seeds of *Zea mais*. The "unknown A" which Hulme and Arthington [3] found in apples is probably also homoserine.

We have also found *α-aminoadipic acid* to be a surprisingly common amino acid in plants. By using a twodimensional run (butanolacetic acid in one direction and phenol in NH_3 atmosphere in the other direction) it is possible to separate α-aminoadipic acid from glutamic acid paper chromatographically [4]. The spot "Y" [2], found on chromatograms made from a 70 % alcohol extract of peas which had germinated 3—5 days, has appeared to be α-aminoadipic acid. This acid has moreover been found in the leaves of *Petasites officinalis, Coleus Rehneltianus, Fraxinus excelsior, Acer platanoides* (also in the yellow ones in autumn), and *Nymphaea alba*, in the seeds and seedlings of *Faba faba, Lupinus angustifolius*, and *Phaseolus vulgaris*, and in the seedlings and roots of *Trifolium pratense*. In the seed of maize Windsor [5] has found this amino acid to be a constituent of a protein.

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