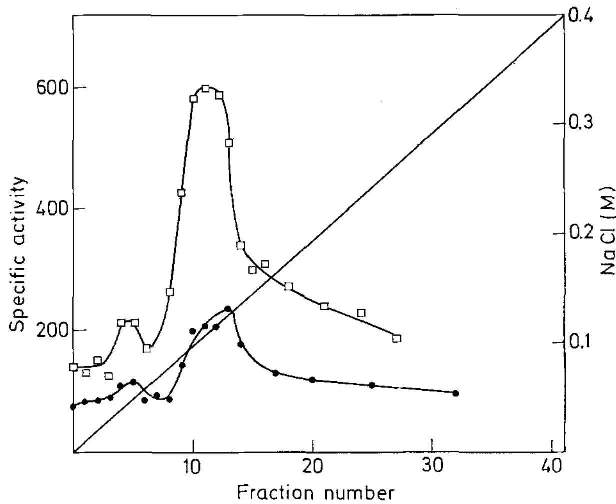

Fig. 1. DEAE cellulose elution profile of protein factors from whole leaf and chloroplast extracts. After thermal treatment, proteins were concentrated by $(NH_4)_2SO_4$ precipitation (80% of the saturation). Filtration through G 50 Sephadex gel equilibrated in 10 $mmol \cdot l^{-1}$ phosphate buffer, pH 7.5, allowed the obtention of the protein factors (20–50% of the Vi) and this fraction was then submitted to chromatography on DEAE cellulose equilibrated in the same buffer. Proteins were eluted by means of a linear ionic strength gradient (0–0.4 $mmol \cdot l^{-1}$NaCl) and collected in fractions of 2.3 ml. To 100 µl of inactive enzyme were added 100 µl of each fraction and DTT 10 $mmol \cdot l^{-1}$. Activity was measured after 1 h in incubation at 30° C. Specific activity is the quantity of NADPH oxidized per mg of enzymatic proteins, per min. (●——●) whole leaf extract, (□——□) chloroplast extract

Table 1. NADP-MDH activity at different steps of chloroplast purification. Chloroplasts were washed three times (fraction I to III) in the extraction medium and then purified on a density gradient (fraction IV). Fraction V was the whole leaf extract

	Activity µmol/mg chlorophyll/mn
I	1.4
II	1.9
III	2.2
IV	2.5
V	2.5

Thus, it seemed of interest to establish their intracellular localization; therefore we prepared enriched intact chloroplasts fractions according to the method of Cockburn et al. In these fractions, NADP-MDH activity and protein factors were detected. When submitted to DEAE cellulose the extracts from the chloroplast preparation showed two peaks as with whole leaves. To determine if they were restricted to the chloroplast, we proceeded to a more complete purification of the organelles. At each step, NADP-MDH activity was determined and expressed on the basis of chlorophyll content. The initial low value reported in Table 1 was probably due to contamination by broken chloroplasts bringing an excess of chlorophyll. During subsequent purification, the activity increased and at the last stage (Step VI), it reached a value equal to that obtained with whole leaves. These results strongly suggested that the enzyme as well as protein factors were restricted to the chloroplasts.

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Erratum

In the article in the issue (Vol. 136, No. 1, pp. 1–6) entitled "Gibberellin-induced Inhibition and Promotion of Sprouting in Aerial Tubers of *Begonia evansiana* Andr. in Relation to Photoperiodic Treatment and Tuber Stage" by N. Okagami, Y. Esashi, M. Nagao, line 3, on page 1, left column, should read as follows: *short-day (SD) treatment until about 10 SD.*