

A B S T R A C T

IAA Oxidase preparations from Sweet Potato (*Ipomoea batatas*) Roots oxidised IAA in the absence of added co-factors. The preparations had major and minor pH optima which were related to the pH of the buffers used to solubilize acetone precipitates in the course of enzyme preparation. The pH optima and specific activities of IAA oxidase, peroxidase and phenolase were compared in selected enzyme extracts and IAA oxidase inhibition by thiourea, sodium azide and diethyl di-thiocarbamate reported. Scopoletin, chlorogenic and caffeic acids and certain inorganic ions inhibited IAA oxidase activity at high concentration but stimulated enzyme activity at low concentrations; these effects were dependent on IAA and enzyme concentration and on pH.

The partial purification of enzyme preparations by ammonium sulphate fractionation and sephadex chromatography is described and the various results obtained are discussed and compared with those obtained in IAA oxidase preparations from other plant sources.

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