

yield was poor). Several phytotoxic substances were extracted from culture filtrates and subsequently purified and identified using chromatographic procedures and standards of *S. auricorne* toxins (seiridin, iso-seiridin, seiricuprolide, seiricardin A and 4 related seiricardins).

One of the tested strains produced all the toxins. Another strain produced all the seiricardins and no butenolides or macrolide. Finally, the third strain produced only some of the sesquiterpenes (mainly, seiricardin A).

RESPIRATORY EFFECTS OF FUSICOCCIN IN CONDITIONS OF INHIBITED H^+ EXTRUSION

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Previous work in this laboratory showed that the stimulation of H^+ extrusion by fusicoccin plus K^+ out is associated in *Elodea densa* with an increase of Q_{O_2} corresponding to the utilization of ATP by the H^+ pump and presumably mediated by a decrease of the energy charge. The present results show that fusicoccin increases respiration even in the absence of K^+ out, a condition in which H^+ extrusion by the pump is completely inhibited by the hyperpolarization of the transmembrane electrical potential. The Q_{O_2} increase in this conditions is much larger (by about 100%) than that observed in the presence of K^+ out, and is suppressed by the addition of K^+ to the medium. When the H^+ pump is blocked by erythrosine B in leaves treated with fusicoccin and K^+ out, Q_{O_2} rises from the value typical of the fusicoccin plus K^+ out to that induced by fusicoccin in the absence of K^+ . These data suggest that the interaction between fusicoccin and its receptor in the plasma-membrane induces some until now unknown change affecting respiratory metabolism and that this change is in some way alternative to the activation effect on the H^+ ATPase.

PRODUCTION OF 6-METHOXYMELLEIN IN PLANT TISSUE CULTURE OF DAUCUS CAROTA

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Aiming to produce secondary plant metabolites of commercial interest, by means of biotechnology, it is important to assess the different strategies which can enhance the rate of production, in bioreactor, of those metabolites.

Contrasting strategies are clonal selection of high producing cell lines or induc-