

In the present study, tomato cuttings exposed to alcohol vapor arising from solutions of alcohol ranging from 0.1 to 95% by volume did not respond epinastically. A safer method involves the quantitative manometric method in which ethylene is trapped by mercuric perchlorate and released again with hydrochloric acid (7). This method may not be sufficiently sensitive for measuring very small quantities of ethylene. In such a case, it has been found satisfactory to trap the ethylene in mercuric perchlorate solution and to release it again in a closed vessel of small volume in which tomato plants are confined (5). The epinastic response of these plants will then be specific for ethylene if the gas arose from biological materials or did not contain other unsaturated hydrocarbons. Alternatively, the triple response can be used as a quantitative measure of the ethylene released from perchlorate solution on addition of hydrochloric acid.

References

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Successful Transplantation of an Apparently Benign Neoplasm

Robert H. Foulkes¹

*Edsel B. Ford Institute for Medical Research,
Henry Ford Hospital, Detroit, Michigan*

A spontaneous mammary pericanalicular fibroadenoma developed in a female albino rat of the Sprague-Dawley strain. Grossly the tumor was a hard, white, homogeneous, lobulated, encapsulated, palpable mass. Six months after complete removal, no recurrence was indicated.

As indicated in the treatise by Greenstein (1), some investigators consider benign tumors incapable of further growth by transplantation. Small pieces of the present tumor, 2 ml thick by 3-4 ml in diameter, were implanted subcutaneously along the milk line of albino female rats. Of the transplants, 4 of 4 in the first, 5 of 6 in the second, 6 of 8 in the third, and 3 of 4 in the fourth generation continued to grow into large tumors. Increase in the size of transplant was not evident for 4-7 wk after transplantation. If no increase was evident after 8 wk, no growth occurred later. Histology of the tumors remained the same in each generation.

Transplantations into 4 male rats and 4 female mice

¹ Adelaide Skinner Fellow in Cancer Research.

(Webster albino) have been unsuccessful. Transplantation by injection of macerated suspensions of the tumor have so far failed. The transplantations are being continued. Any significant change in the appearance or behavior of this tumor will be reported.

Reference

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Circular Paper Chromatography II. Isatin as a Color Reagent for Amino Acids

Abraham Saifer and Irwin Oreskes¹

*Biochemistry Department, Division of Laboratories,
Jewish Sanitarium and Hospital for Chronic Diseases,
Brooklyn, New York*

In a previous publication (1), studies were presented of the physical factors that may influence R_f values for the circular chromatographic method (2, 3). Among the advantages of this method is the possibility of cutting the chromatogram into a number of segments and using various color producing reagents for each segment. Thus, it is possible to identify an individual amino acid in a band containing several other amino acids by means of *specific* color reactions. A number of such specific reagents which give colors with one or several amino acids have been mentioned in the literature (4, 5). This is in contradistinction to the use of ninhydrin (6-8) as the coloring reagent "par excellence" which gives purple or blue colors with virtually all the amino acids found in protein hydrolyzates. Exceptions to this color reaction with ninhydrin are the imino acids, proline and hydroxyproline, which give faint yellow colors. It was for this reason that Acher, Fromageot, and Jutisz (9) first proposed the use of isatin in *n*-butanol-acetic acid solution as a highly specific reagent which gives intense blue-green colors for proline and hydroxyproline on paper chromatograms. Their use of this reagent is based upon the experimental studies of Grassmann and Arnim (10, 11) on the reaction of isatin with pyrrole ring compounds to give colored products.

The chemistry of isatin is discussed in the textbook of Morton (12) and in a review paper by Sumpter (13). These sources point out that isatin reacts with both imines and amines to form products which in many cases are colored. However, only sporadic references were found to the reaction of isatin with amino acids in general (14, 15). Although isatin is now generally used as a specific reagent for the identification of proline and hydroxyproline on paper chromatography.

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