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## Exploratory Studies on Four Characteristics and the Amount of Trace Elements in Chinese Medicinal Herbs

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The relationship between four characteristics and the amount of trace elements contained in Chinese herbs was explored as a whole. 32 kinds of trace elements in 115 Chinese herbs were determined by three-electrode inductive coupled plasma torch emission atomic spectrometer and the data sets were analysed by a commercial package of programs, PARVUS. The Linear Discriminant Analysis, one of Supervised Pattern Recognition approaches, was used and showed the excellent classification ability for the data sets categorized according to their traditional four characteristics. For the mean values of 32 trace elements, the 84.37% of 115 herbs with cool characteristics is higher than the whole, and 90.62% and 84.37% for the neutral and warm. The correct classifications in three categories are 70.34%. It was certified that the amount of trace elements is the substantial basics of the four characteristics in Chinese medicinal herbs, and the correlation between the amount of the trace elements and the curative effects in Chinese medicinal herbs exists.

**Key words** Trace elements; Four Characteristics of herbs; Chemometrics; Supervised Pattern Recognition

【文摘 053】尿中睾酮与表睾酮的三甲基硅烷化及其比值的 GC-MS 测定 杨悦武, 吴如金. 药学报, 1992; 27(10): 758

对睾酮及表睾酮的三甲基硅烷化进行了详细考察, 找到了较好的抗氧化剂巯基乙醇, 确定了较好的衍生化条件, 衍生化产物单一。并采用 GC-MS 法测定了尿中睾酮与表睾酮的比值。实验条件为: 以氦为载气, SE-54 熔融石英柔性毛细管柱, 程序升温进行样品分离, 多离子检测(MID), 监测  $m/z$  432 的离子。该法专属、灵敏、快速。睾酮与表睾酮的比值在 1:1~10:1(睾酮为 20 ng/ $\mu$ l)与相应峰面积比呈线性关系( $r=0.998$ ), 最低检测限为 1 ng, 最低检测尿药浓度

为 8 ng/ml。

【文摘 054】《炮炙大法》评述 张清华, 刘成基. 中药材, 1992; 15(3): 46

该文对《炮炙大法》一书进行了介绍。《炮炙大法》是明·万历时著名医药学家缪希雍的炮制专书。全书按药物类别分为水部、火部、土部等 14 部, 共 439 种中药。书中叙述了各药的炮制方法, 也包括各药的出处, 采集、优劣鉴别、炮制辅料、炮制过程、炮制后贮藏方法, 对某些药物阐述了炮制前后性质的变化和不同的治疗效果, 在书末附有“用药凡例”, 对药物的炮制原则, 及煎药、服药等都进行了较详细的说明。