THE EFFECT OF pH GRADIENT ON PHOTOELECTRIC RESPONSE OF MONOMERIC bR BLM

Hu Kunsheng Wang Dahui Tan Manqi
(Institute of Biophysics, Acadimia Sinica, Beijing)

ABSTRACT

Monomeric bR was reconstituted into DMPC vesicles. Absorption spectrum and CD spectrum show bR molecules in DMPC vesicles were in monomeric state. We have measured the effect of pH gradient on photoelectric response of monomeric bR BLM. When the pH in inside container was higher than the pH in outside container and the difference of pH was more than 2, we have observed the change of polarity from positive to negative. Also we have discussed the reason of the change of polarity of photoelectric response.

Key words Halobacteria halobium, Bacteriorhodopsin (bR), monomeric bR vesicles, planar lipid membrane (BLM), photoelectric response

经验交流

一种用于浓缩微量大分子样品的装置

韩 刚 毅
(济南军区军事医学研究所,济南 250014)

关键词 生物大分子,样品浓缩装置

本实验室为解决微量蛋白质样品浓缩的需要，制作了一套简便浓缩装置。该装置是利用两个有机玻璃框板夹着一张透析膜,两外侧分别夹上档板,固定成两排被透析膜平行分隔开的槽。框板上吸收剂槽的底部平齐,而样品槽的底部较深,呈V形。各板之间以及透析膜的接触面上都涂一层均匀的凡士林封闭层，以防止渗漏。

使用时将稀样品液加入底部呈V形的槽中,另一槽内加入吸收剂。当溶液被浓缩至V形底部时，浓缩过程自行中止,故可将溶液浓缩至一定体积。

本实验室采用30%聚乙二醇6000作为吸收剂，按照吸收剂：样品液为1:3的比例(V/V)，在2小时内即可将3ml稀蛋白质溶液浓缩30—40倍。蛋白质回收率可达70—90%。

[本文于1989年8月14日收到]