

ABSTRACT

A RESEARCH ON USAGE POSSIBILITY OF MOSSES FOR ALBUMIN REMOVAL IN PROTEOMIC STUDIES

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Antitrichia californica Sull., *Pterogonium gracile* (Hedw.) Sm., *Hypnum cupressiforme* Hedw. and *Homalothecium sericeum* (Hedw.) Bruch, Schimp. & W.Gümbel moss materials were collected from Aydın/Koçarlı location in October, 2012. Characterization of the plant materials were carried out by using technics such as SEM imaging, FTIR spectrums and Elemental Analysis. Characterized plant materials were silanized by IMEO, which is a pseudo-specific ligand for protein affinity. In this study, the BSA protein adsorption capability of both silanized and non-silanized plant materials were tried. During the experiments for revealing the maximum adsorption of BSA to the plant material by testing certain parameters such as temperature, incubation time, pH, BSA initial concentration and ionic strength, it was found out that there have been a protein release to the test medium. This release was tried to be prevented or removed by washing the plant material. The washed plant material still released protein to the medium. Thus it was concluded that the plant material releasing protein to the medium is improper for its use in albumin removal for proteomic studies.

Key words: Proteomics, Albumin Removal ,Moss, IMEO, BSA.