

SEM observations for biology and medicine without special sample preparation

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Abstract

The presentation will show and discuss SEM images of living objects. All observations were made without special sample preparation (e.g. critical point drying, carbon coating). It was crucial to perform measurements in a very short time after placing the objects in a low vacuum.

The following will be presented: an analysis of the structure of eriophyoidea (dimensions) for a better understanding of their biology [1], an analysis of the central catheters of patients with bacterial and fungal infections [2], and an analysis of the dissolution of foliar fertilizer used in plant cultivation.

In each of these cases, a scanning electron microscope operating in a low vacuum was a sufficient tool to obtain valuable results.

Keywords: biology, infections, fertilizers, bacteria,

Acknowledgements The author thanks the Poznań University of Technology project 0512/SBAD/2320 for financial support

References

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- [2] A. Kluzik, H. Tomczak, M. Nowicki, M. Grzeskowiak and K. Kusza Scanning Electron Microscope Examination as an Alternative to Classical Microbiology in the Diagnostics of CatheterRelated Sepsis? *Int. J. Environ. Res. Public Health* 2023, 20, 5028.