

Concerning the study of genotoxicity effect of indole derivatives on *Allium cepa*

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Abstract

The genotoxic and mutagenic effects of indole (I), 5,6-dimethylindole (II), 1-(phenylsulfonyl)-1*H*-indole (III) were studied for *Allium cepa* seedlings on the different stages of early ontogenesis. The differences in the action on early ontogenesis stages were shown for II and III substances but not for I. All the tested substances demonstrated mitosis-modifying action on *Allium cepa* root meristem cells depending of the action time. They provided the blocks on different mitosis staged: I – on telophase, II – on prophase, III – on anaphase, but for III only the action time was the meaning factor. All the substances demonstrated the mutagenic effect that decreased in the contrary with their molecular volume and lipophilicity in a row I > II > III.

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