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Translocation of radioactivity from substrate to macromycetes in some mining areas

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The present study follows the extent of translocation radioactivity from substrates of uranium and sulphur mining area to the macromycetes spontaneously occurred during 2008-2009. To this end, radioactivity measurements (gross α+β, 226Ra, and 137Cs) on both macromycetes and their substrates were made. The resultants obtained were confirmed by FT-IR spectroscopy, evidencing the presence of characteristic bands around of 910 cm-1, corresponding to the asymmetric stretching vibration of the uranyl unit and to the interaction between the UO22+ ions and the group belonging to various cellular components.

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