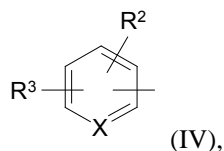


The invention relates to the microorganism, representing the strain of *Rhodococcus* sp. FZ4, deposited under the registration number DSM 13597, and its functional equivalent variants and mutants, enabled to convert acetonitrile in amide, nitrile-hydrazide, obtained from the given microorganism, enzymatic extract, having the mentioned nitrile-hydrazide, and to the process for preparation of amides of the general formula (III)

R^1 -CONH₂ (III),

where R^1 denotes C₁₋₆ alkyl residue, C₂₋₆ alkenyl group, or the group of the general formula



where X denotes the atom of nitrogen or the group -CH=, R^2 and R^3 independently of one another denote atom of hydrogen, atom of halogen, C₁₋₆ alkyl group or C₂₋₆ alkenyl group, where the nitrile of the general formula (II)

R^1 - CN (II),

where R^1 has the values, mentioned above, is subjected to conversion by means of the given microorganism, enzymatic extract or the mentioned enzyme. The invention also relates to the application of the given microorganism for the cancellation or utilization of the waste substances of acetonitrile.