

Biochemical Identification and Study of Antibiotic Resistance in Isolated Bacteria from WWTP TIMGAD

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Abstract : Water is self-purified by activated sludge process which makes its uniqueness. The main goal is the microbial biocenosis study of the input and output water of the waste water treatment system plant Timgad. 89.47% of the identified biocenosis belongs to γ -Proteobacteria while the remaining 10.52 % is equally divided between α -Proteobacteria and β -Proteobacteria. The antibiotics susceptibility profiles reveal that over 30 % are wild strains while the penicillinases are often present (11.30-20 %) with also other profiles. This proportion is worrying that the water discharged join the Oued Soltez used for irrigation. This disadvantage involves the installation of a chlorination step.

Keywords : activated sludge, biocenosis, antibiotics profiles, penicillinases, physic-chemical quality

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