

INFLUENCES OF THE CARBON SOURCE IN THE PRODUCTION OF GLYCOLIPIDIC BIOSURFACTANT FOR *Pseudomonas* spp

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Biosurfactants are amphiphilic compounds of large importance industrial. The purpose of this work was to verify the production of biosurfactants by different strains of *Pseudomonas* (C1, C2 and C3) isolated of effluent agro industrial, having maize oil as carbon source. The composition of the growth medium used was (g/L): 2 MgSO₄; 3 MnSO₄. H₂O; 0.1 FeSO₄.7 H₂O; 0.1 NaCl; 0.1 yeast extract and 1% maize oil. Aliquots of the filtered growth medium were utilized for measure the pH, orcinol assay and emulsifying unit. The different glycolipidic types were separated by TLC using CHCl₃:CH₃OH:H₂O (65:25:4, v/v/v) as solvent system. On the basis of the biochemist results (commercial kit API 20E) were possible identify three different *Pseudomonas* species: *P.aeruginosa*, *P.fluorescens* and *P.putida*. The maximum concentrations of the biosurfactant obtained were 200.58 mg/L *P.aeruginosa*, 56.57 mg/L *P.fluorescens* and 23.45 mg/L *P.putida*. The emulsifying unit 120h after the inoculation was 2.013 *P.aeruginosa*, 0.8 *P.fluorescens* and 0.192 *P.putida*. The TLC analyses produced spots with different values R_f (0.73 and 0.47) showing positive reactions for sugars with Molish reagent. The *P.aeruginosa* species showed potential to be used in consortium with other microorganisms in assays of bioremediation.

Keywords: Biosurfactant, *Pseudomonas*, chromatography

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