

Título: Fungi enzymes database: quickly, easily and efficiency information search

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The microorganisms presents important contributions for the Earth inhabitants welfare. Among other functions, they are responsible for the recycling and maintenance of ambience's chemical compounds. Regarding filamentous fungi, they are multicellular microorganisms constituted by hyphae, elongated filaments of quitin cell walls. They are vital for their ecosystems, furthermore, they can be used in food industry, as bread fermenting, beer and cheese, in antibiotics and organic acids production. They are also used in yielding important industrial and biotechnological metabolites, as enzymes. Enzymes are catalysts which act in metabolic pathways under great conditions in living beings. Some enzyme's properties effect in being more appropriated than traditional chemical catalysts, accordingly to their great catalytic efficiency, considering that, the main objective of bio transformation process, is to reach a substract high conversion in little time, considering high specificity and selectivity, depending in the metabolic function. Therefore, the microorganisms and their metabolites systematization are very important for future projects. The present research consist in studying and organizing more than 80 microorganism quotes in article and books, relating and classifying then by described fungal enzyme. To reach the research goal, it was organized a database using MySQL, a database management system. The information collected in bibliography were organized creating links between the fungus, the produced enzyme, the carbon source and culture medium, metabolite industrial utilization and description's author. The gathered information can be used as subsidy for research in the database. Using Django, a structured Python framework, it was developed a web application hosted in a institutional server, to offer a preview and propagation of collected information to the public. As result, the interface is innovative to afford to the researcher a quick access to a vast assortment of contents, decreasing time and work spent in bibliographic survey, furthering the discover of new filamentous fungal enzymes. As future work to this research, it's engaged the database proliferation in other servers.

Palavras-chaves: biotechnology, data warehouse, microorganisms, fungi metabolites