

## Abstract

In this thesis I focus on the enzymatic degradation of plant structural polysaccharides cellulose and hemicellulose. I describe the enzymes involved in their lysis and their breakdown and their function and occurrence among organisms. I also pay attention to the mechanisms of xylose and arabinose catabolism as pentoses found in hemicellulose. I describe some niches where cellulose and hemicellulose degradation takes place and organisms that take part in it. Finally I shortly point out the biotechnological importance of these organisms in the production of bioethanol.