

Abstract

This bachelor's work is dealing with the various aspects of utilization of liquid biofuels in the road transport. These aspects are physicochemical, technical, economic, social and environmental. In the first part of the work, there are definitions of bioethanol and biodiesel at the beginning, which are the most frequently used in the category of liquid biofuels. Properties of both biofuels and production processes are also included. Combustion of biofuels has a significant impact on human health, among others. So, the chapter dealing with the emissions from combustion of bioethanol or biodiesel and health effects of these emissions is following. The second part of the work aims to map a current situation in the field of biofuels in selected countries. These countries are the United States of America, Federative Republic of Brazil and People's Republic of China. Analysis of each country is divided into several topics – production of bioethanol/biodiesel, government programs to support the development of biofuels and possible future perspectives of developments in the fields of biofuels. The third and last part deals with numerous side effects of production and utilization of liquid biofuels. These effects are divided into the two main categories, environmental effects and social effects. The side effects of the economic impact are neglected for the purpose of this work.