

Stability studies of immobilized *Burkholderia cepacia* lipase and its application in biodiesel production from *Jatropha curcas* Oil

Abstract

This chapter focuses mainly on biodiesel production from the future green gold namely *Jatropha curcas*. The importance of this plant as biodiesel-feedstock, oil extraction methods from the seeds, and different routes of biodiesel production are discussed in the first part. Nowadays, immobilization of lipase has gained immense potential in the biofuel industry mainly to reduce the production costs and to make the method more economical. Different approaches of lipase immobilization are briefed in the second part. The final part of this chapter shows stability studies of *Burkholderia cepacia* lipase immobilized in hybrid matrix and its application and biodiesel optimization from crude *J. curcas* oil.