

## **CHAPTER V**

### **CONCLUSIONS**

Zinc stearate and natural rubber was found to be an effective prooxidant system since they accelerate the thermooxidation reaction. The presence of both components in the blends led to a material which degraded faster than pure PE. Starch which was added as a biodegradable filler also enhanced the thermooxidation by increasing the number of holes in the PE matrix. EAA not only can be used as a compatibilizer but also can promoted the thermooxidation due to the presence of carboxylic hydrogens in the acrylic unit.

In enzymatic degradation, the percentage of starch hydrolysis increased with increasing starch content in the blends. A combination of heat treatment and enzyme treatment can accelerate the degradation of the blends. The rate obtained is faster than obtained when using enzyme treatment alone.