

## **CHAPTER V**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Conclusions**

The ultrasonication treatment using ultrasonic cell crusher affected the mechanical properties and moisture absorption by increasing sonicated time. The mechanical properties showed that there was optimum value of tensile strength with increasing sonication time. The tensile strength of PVA films were improved with increasing sonication time from 0 to 7.5 min and then decreased when the sonication time was 10 min. The ultrasonication treatment also increased elastic modulus and elongation. The water resistance ability of PVA films increased during ultrasonication. However, the ability still less than untreated PVA films.

#### **5.2 Recommendations**

To get the better result of the reseach, there are some parameter that should be concern:

1. Make sure the filler is evenly distributed while casting process.
2. Remove the bubbles before casting.
3. Make sure the tensile test specimen broke in the middle part when tested.

