CHAPTER VI
CONCLUSIONS AND RECOMMENDATIONS

In this solid fluidized bed, the axial and the radial solid velocity distributions for a bubble phase were found to be similar to Maxwellian distribution for correct data. The particle velocity in the bubble was measured in an IIT's two-dimensional bed using video camera. The bubble diameter and the bubble rising velocity were higher than those predicted by Davidson model. They are due to the error by including the measurement in the bubble burst region. For this reason, the bubble near the surface was found to be higher than that near the bottom.

The particle granular temperature was less than the bubble-like one. Normally the total granular temperature was a little higher than the bubble-like one . Therefore, the sum of the particle and the bubble-like granular temperatures is greater than the total one. The average axial velocity at center was less than one at both sides because the frequency of the bubble at both sides was greater than one at the center.

For future work, finite different method should be improved to finite element. It would give more correct data than finite differential.