CHAPTER IV
CONCLUSIONS

1. The wall slip magnitude of LLDPE and HDPE was found to increase with temperature but to decrease with molecular weight. The slip velocity depends on the wall shear stress according to the power law; $V_S = A\tau_w^m$. The slip coefficient A depends on temperature, molecular structure, molecular weight. The scaling exponent, m, depends on molecular structure and molecular weight.

2. Both the entanglement and marginal regimes were observed depending on temperature and molecular weight. The extrapolation length obeys the linear law $b = CV_S$ where C depends slightly on temperature but strongly on molecular weight. The prediction of $C = \eta_0^* / \tau^*$ by Brochard and de Gennes (1992) is approximately confirmed in our study.