

## Effect of Reaction Conditions on the Optical Purity of Lactide

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The lactide was produced from oligomeric PLA by a transesterification reaction known as “back-biting”. In the lactide preparation, the temperature had more significant effect than the type of Sn-based catalyst on the yield of crude lactide and the degree of racemization. Higher yield of crude lactide and lower racemization was obtained at lower pressure. When the molecular weight of oligomeric PLA was 1380, the maximum yield of crude lactide composing of highest D, L-lactide concentration and the lowest meso-lactide concentration was obtained. The catalyst levels above 0.1 wt% led to an significant increase in the concentration of meso-lactide. The lactide is more sensitive to racemization than oligomeric PLA as the deprotonation of lactide was occurred easily from the view point of entropy change.