

ESI Document for the Manuscript ***The Importance of Ionic Conduction in Microwave Heated Polyesterifications***

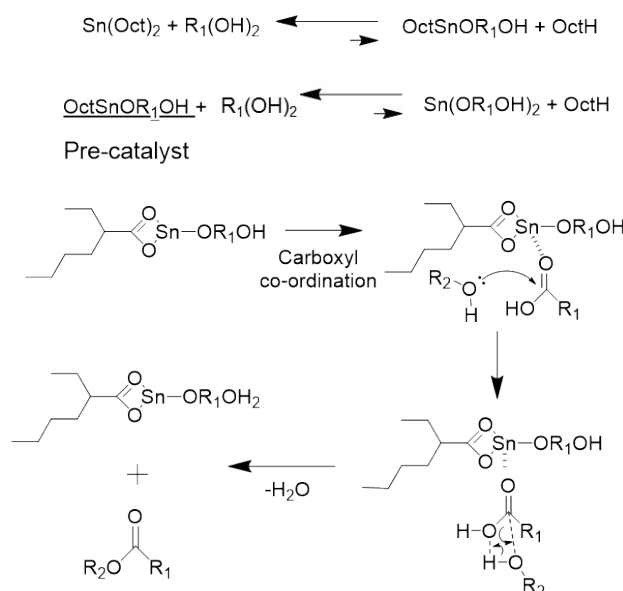
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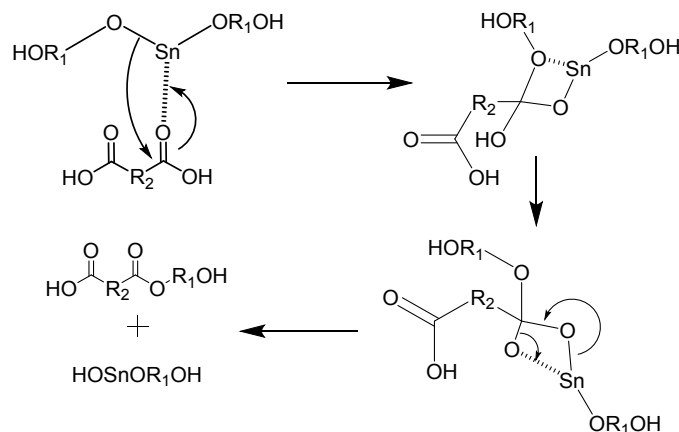
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ai) Carboxyl co-ordination to pre-catalyst



aii) Insertion of pre-catalyst into ester chain



b) Lewis Acid mechanism

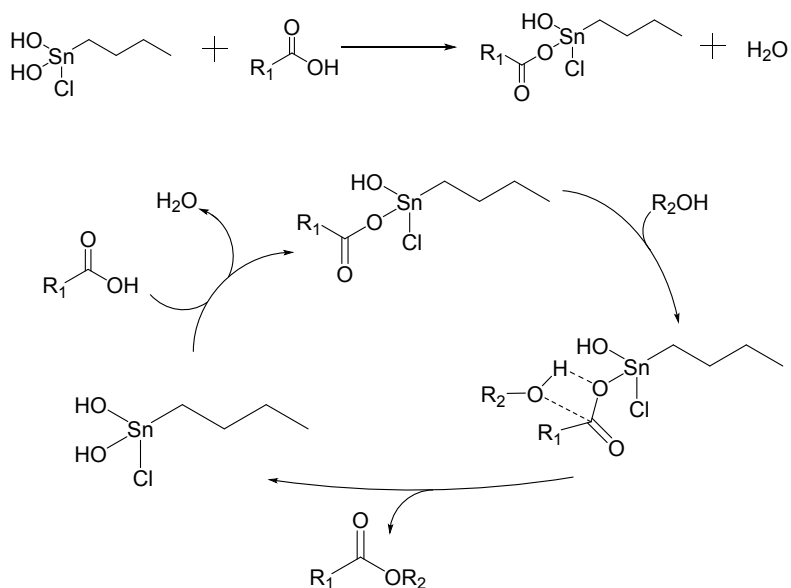


Figure S1. Proposed mechanisms for the adipic acid, hexanediol polyesterification using a) $Sn(Oct)_2$ and (b) DHBTC tin catalysts.

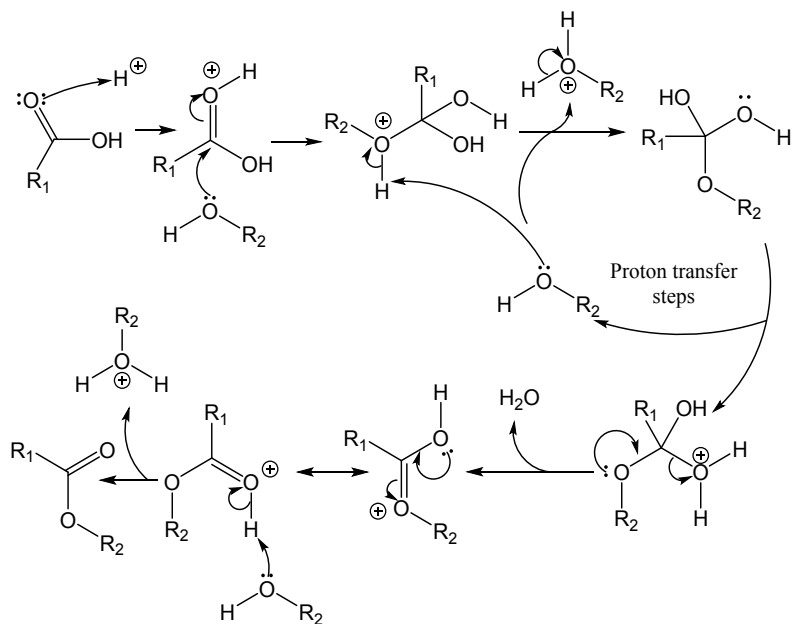


Figure S2. Fischer esterification mechanism of acidic catalysts.

Table S1 - The Dielectric Constant and Dielectric Loss Values for these materials recorded at the Reaction Temperature of 185°C

Reagent	Dielectric Loss	Dielectric Constant	Tan δ
Hexanediol	10.11	0.94	0.093
Adipic Acid	5.52	0.78	0.142
Sn(Oct) ₂	4.08	0.41	0.100
DHBTC	3.17	0.26	0.082