**β-Ketoesters as Mono- or Bisnucleophiles: A concise Enantioselective Total synthesis of (-)-Englerin A and B**

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1. **1. (DHQD)₂PHAL in THF/TFE**
2. **2. Et₃N, DMAP, TCBC**
3. **3. TMSOTf cat**
4. **4. LiHMDS, DMPU, then 4**
5. **5. LiCl, wet DMSO**

6. **6. KHMDS, PhNTf₂**
7(a) **Pd([PPh₃]₂Cl₂, Et₃N**
   (b) **then MeSiCl₂H**
   (c) **then H₂O₂**
8. **8. TPAP, NMO**
9. **9. (S)-CBS, BH₃**
11. **11. Cinnamoyl chloride, ET₃N, DMAP**
   then TBAF
12. **12. K₂CO₃ MeOH/H₂O**

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1. What is the name of compound **1**? Please classify the reaction: Methyl glyoxal / Asymmetric decarboxylative aldol reaction

2. Name of the reaction? Yamaguchi esterification / TCBC: Yamaguchi reagent

3. Please classify the reaction: Formal [4+3] cycloaddition

5) Name of the reaction? Krapcho decarboxylation

7) a) Name of the reaction? Intramolecular Heck c) Name of the reaction? Fleming oxidation