

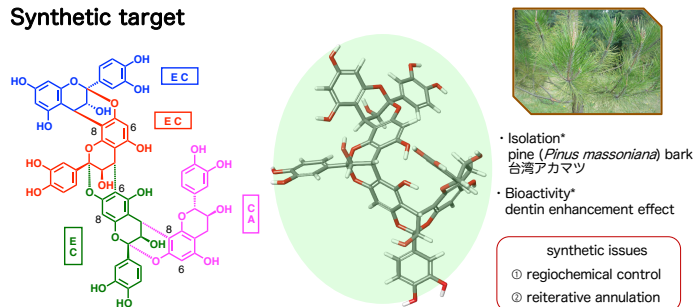
Synthetic Study on Doubly-linked Flavan Oligomers

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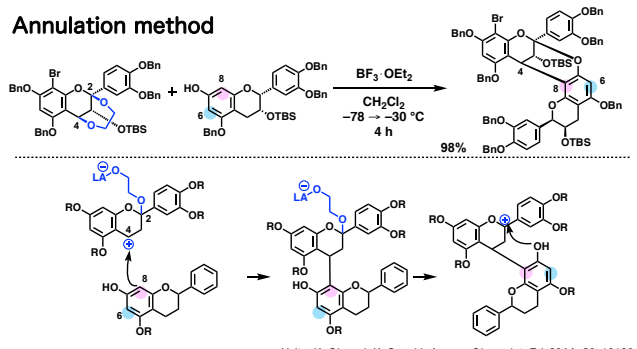
Synthetic target



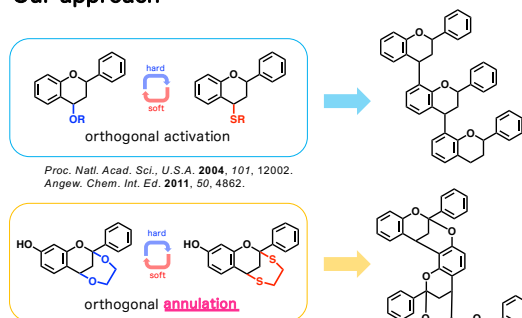
Accumulated doubly-linked catechin tetramer

* J.-W. Nam et al., J. Org. Chem. 2017, 82, 1316.

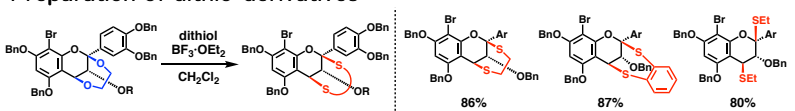
Annulation method



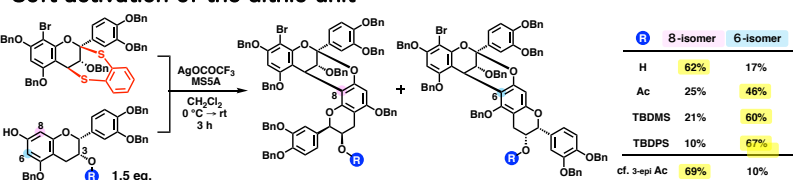
Our approach



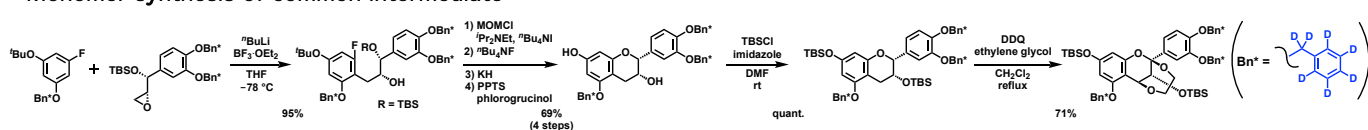
Preparation of dithio-derivatives



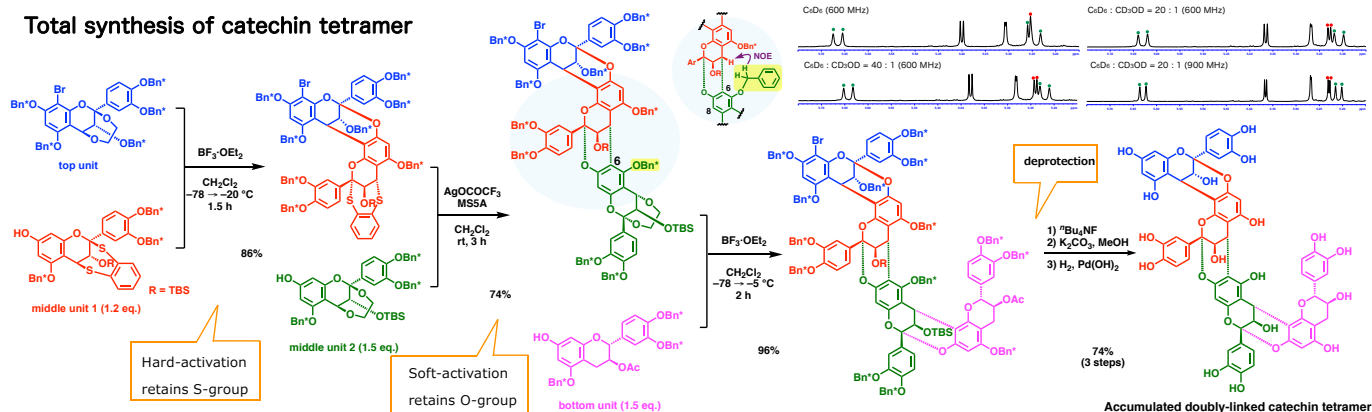
Soft activation of the dithio unit



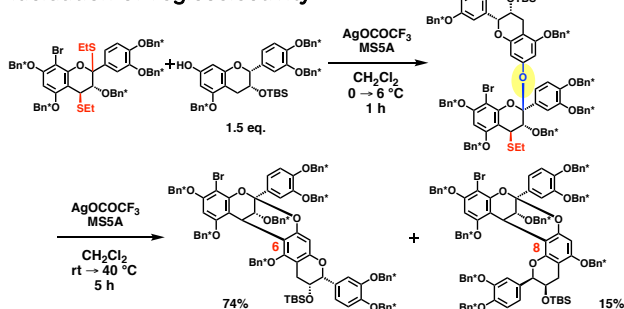
Monomer synthesis of common intermediate



Total synthesis of catechin tetramer

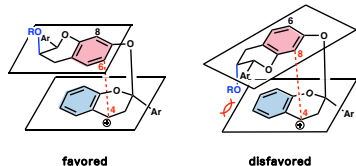


Elucidation of regioselectivity



dithio
→ C2 cation, O-attack

dioxy
→ C4 cation, C-attack



ΔE (kJ/mol)

