Asymmetric Total Synthesis of Twin Bufogargarizins A and B.
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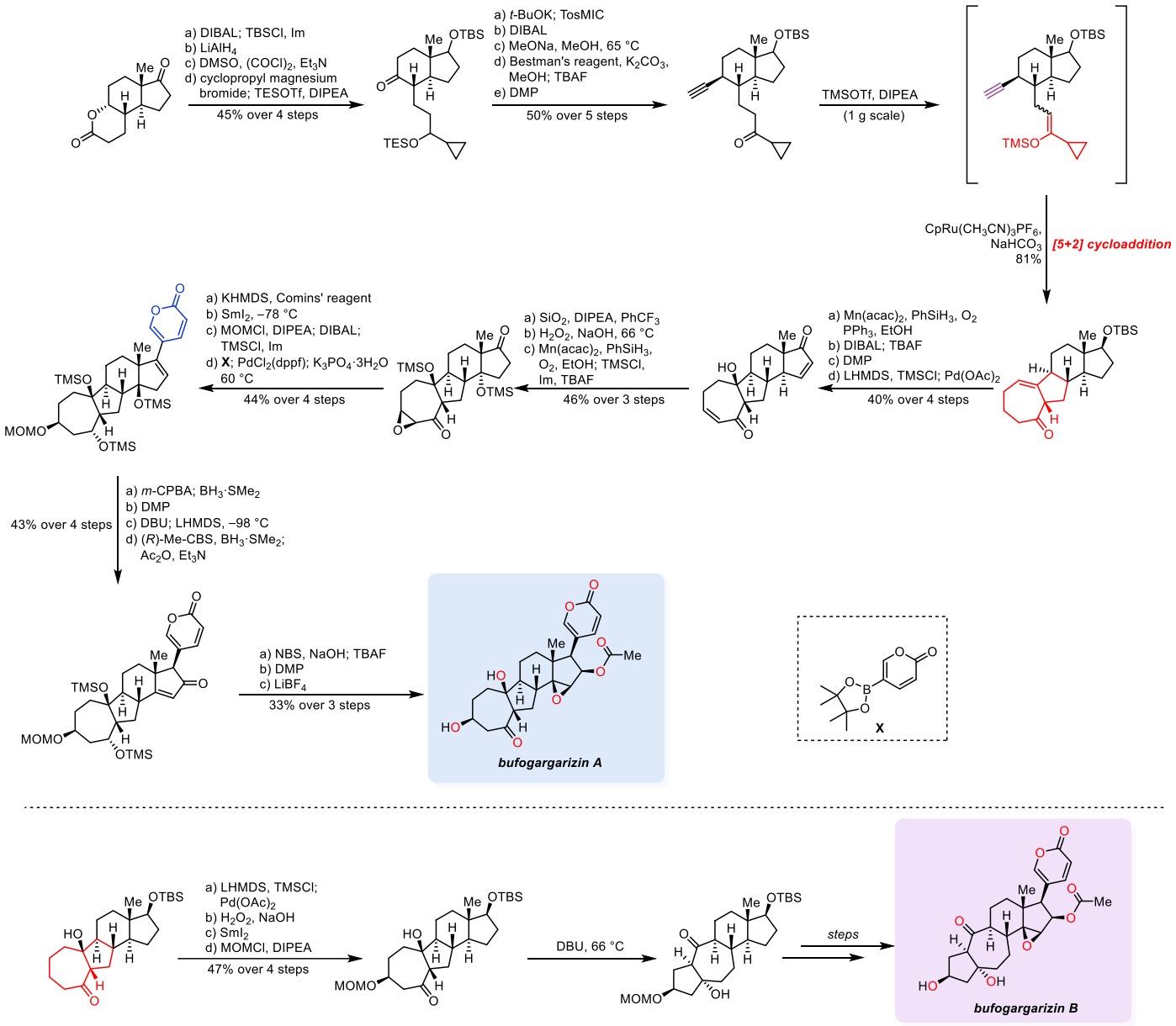

Significance:

Li and coworkers achieved the first asymmetry total synthesis of Bufogargarizins A and B in 28 and 30 steps. The challenging [7-5-6-5] ring system could be constructed effectively via a Ru-catalyzed [5 + 2] cycloaddition reaction, and the [5−7−6−5] tetracyclic skeleton of Bufogargarizin B was assembled from the [7-5-6-5] skeleton.

Comment:

- *Intramolecular Ru-catalyzed [5 + 2] cycloaddition reaction as the key step to construct the [7-5-6-5] core skeleton efficiently, enabling the diverse syntheses of other natural bufogargarizins, bufadienolides, and analogues that also have similar structural features.*

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