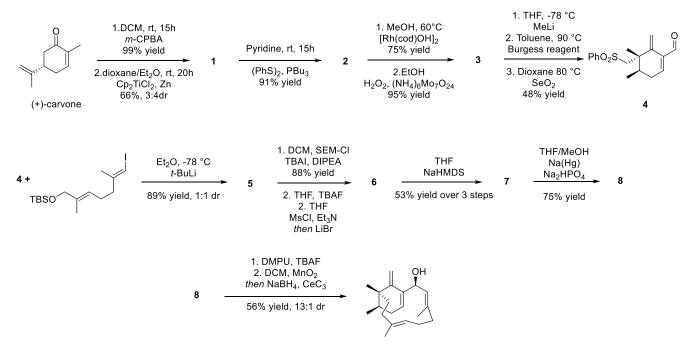
1. Propose a reaction pathway for the common intermediate in the total synthesis of the Phomactins



Sarpong JACS 2020, 142, 15536-15547

2. Propose the mechanism and structure of the final product for the dual-catalysis

ACIE 2020, 59, 1557-1561

3. Propose the mechanism and structure of the final product

NNHTs
$$R_{1}$$

$$R_{2}$$

$$R_{3}$$

$$R_{3}$$

$$R_{2}$$

$$R_{3}$$

$$R_{3}$$

$$R_{4}$$

$$R_{2}$$

$$R_{3}$$

$$R_{3}$$

$$R_{3}$$

$$R_{4}$$

$$R_{3}$$

$$R_{3}$$

$$R_{4}$$

$$R_{3}$$

$$R_{3}$$

$$R_{4}$$

$$R_{5}$$

$$R_{3}$$

$$R_{4}$$

$$R_{5}$$

ACIE 2020, 59, 2-10

4. Explain the mechanism of the transformation

ACIE **2020**, *59*, 471-478