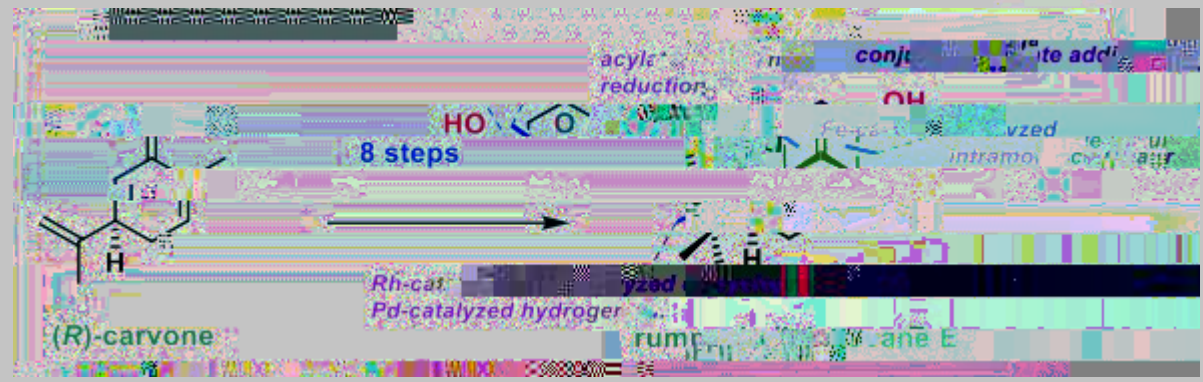


Asymmetric Total Synthesis of Rumphelleclovane E

Guanggen Liu,¹ Zhiyong Zhang,¹ Shengmin Fu,¹ and Bo Liu¹



- 1,2-addition of a nucleophile to an α,β-unsaturated carbonyl compound
- 1,4-addition of a nucleophile to an α,β-unsaturated carbonyl compound
- 1,4-reduction of an α,β-unsaturated carbonyl compound
- 1,2-reduction of an α,β-unsaturated carbonyl compound
- 1,4-reduction of an α,β-unsaturated carbonyl compound
- 1,2-reduction of an α,β-unsaturated carbonyl compound

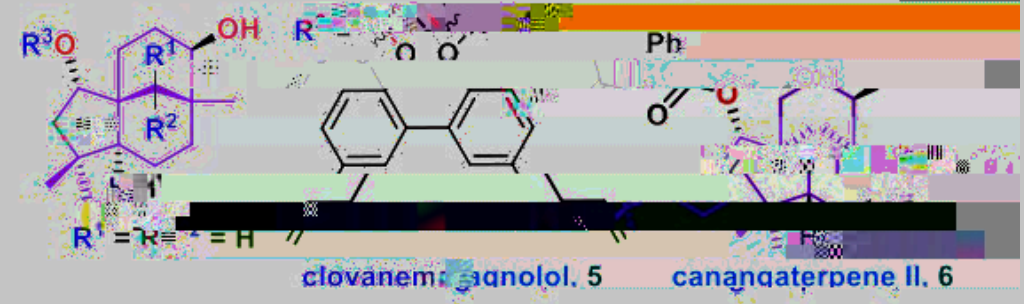
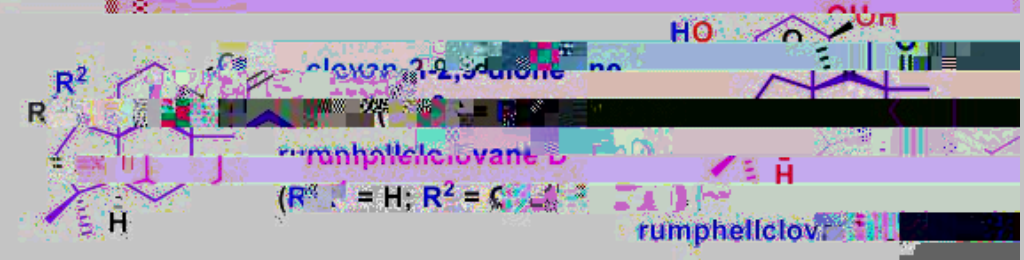
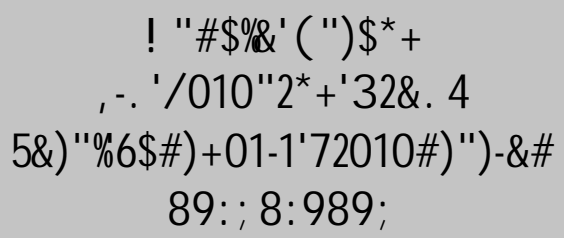


Figure 1. Asymmetric total synthesis of rumphelleclovane E.

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5 &) "% 6 \$ #) + 0 1 - 1 ' 7 2 0 1 0 #) ") - & #
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(a) Becker et al (1965). A-AB-ABC strategy



(b) Schultz et al (1988). B-BC-ABC strategy



(c) Dreiding et al (1985).



(d) Raphael et al (1965). C-BC-ABC strategy

