



Showcasing research from Professor Xie's laboratory,  
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Regioselective C(sp<sup>3</sup>)-H borylation *via* a diarylboryl anion  
surrogate in sp<sup>2</sup>-sp<sup>3</sup> diboranes(5)

This paper reports a regioselective C(sp<sup>3</sup>)-H borylation  
of sp<sup>2</sup>-sp<sup>3</sup> diboranes(5) enabled by a highly reactive  
[B(o-tolyl)<sub>2</sub>]<sup>-</sup> surrogate. The surrogate preferentially inserts  
into α-C(sp<sup>3</sup>)-H bonds of alkyl substituents, furnishing a  
series of 1,1-diborylalkyl compounds. When the substrate  
lacks α-C(sp<sup>3</sup>)-H bonds, the process switches to β-C(sp<sup>3</sup>)-H  
activation.

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See Jie Zhang, Zuowei Xie *et al.*,  
*Chem. Sci.*, 2025, **16**, 22314.