



Showcasing research from Professor Imoto's laboratory,
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Structural effects of arsine ligands on C–H
difunctionalization of thiophene

This work reveals the potential of arsine ligands in
Pd-catalyzed C–H difunctionalization of thiophene. Screening
36 arsines identified ligands with optimal electronic and
steric properties. Arsines show higher oxidative stability and
broader catalytic accessibility than phosphines, offering new
opportunities for transition-metal catalyst design.

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See Hiroaki Imoto *et al.*,
Chem. Sci., 2025, **16**, 20843.