



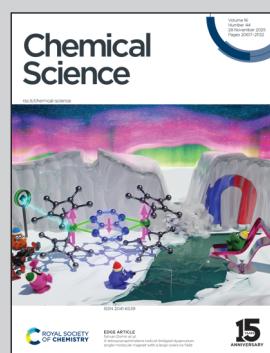
Showcasing research from Professor Imoto's laboratory,
Faculty of Molecular Chemistry and Engineering, Kyoto
Institute of Technology, Kyoto, Japan.

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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Chem. Sci., 2025, **16**, 20843.

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