

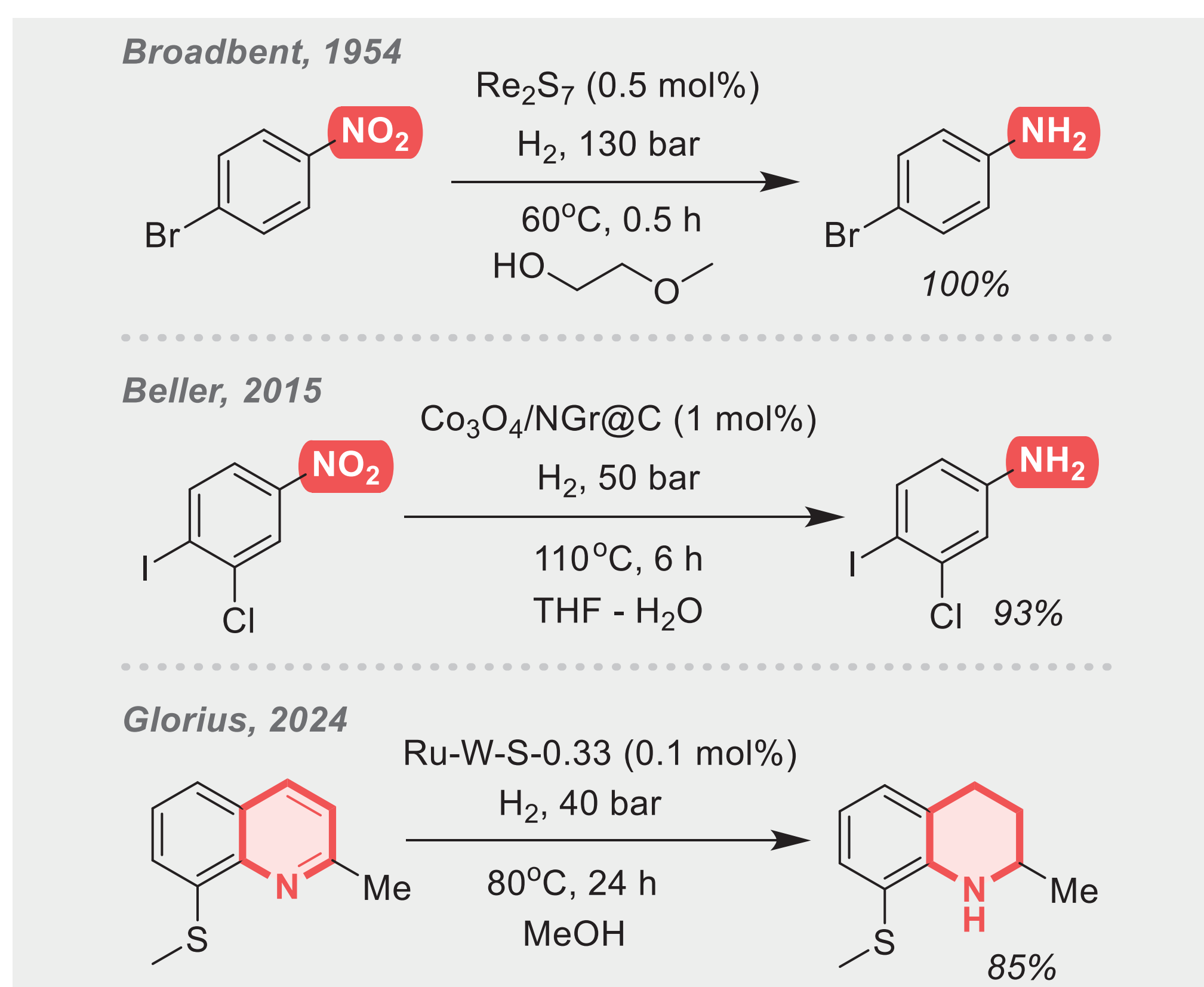
Rhenium heptasulfide: rebirth as selective hydrogenation catalyst for organic synthesis

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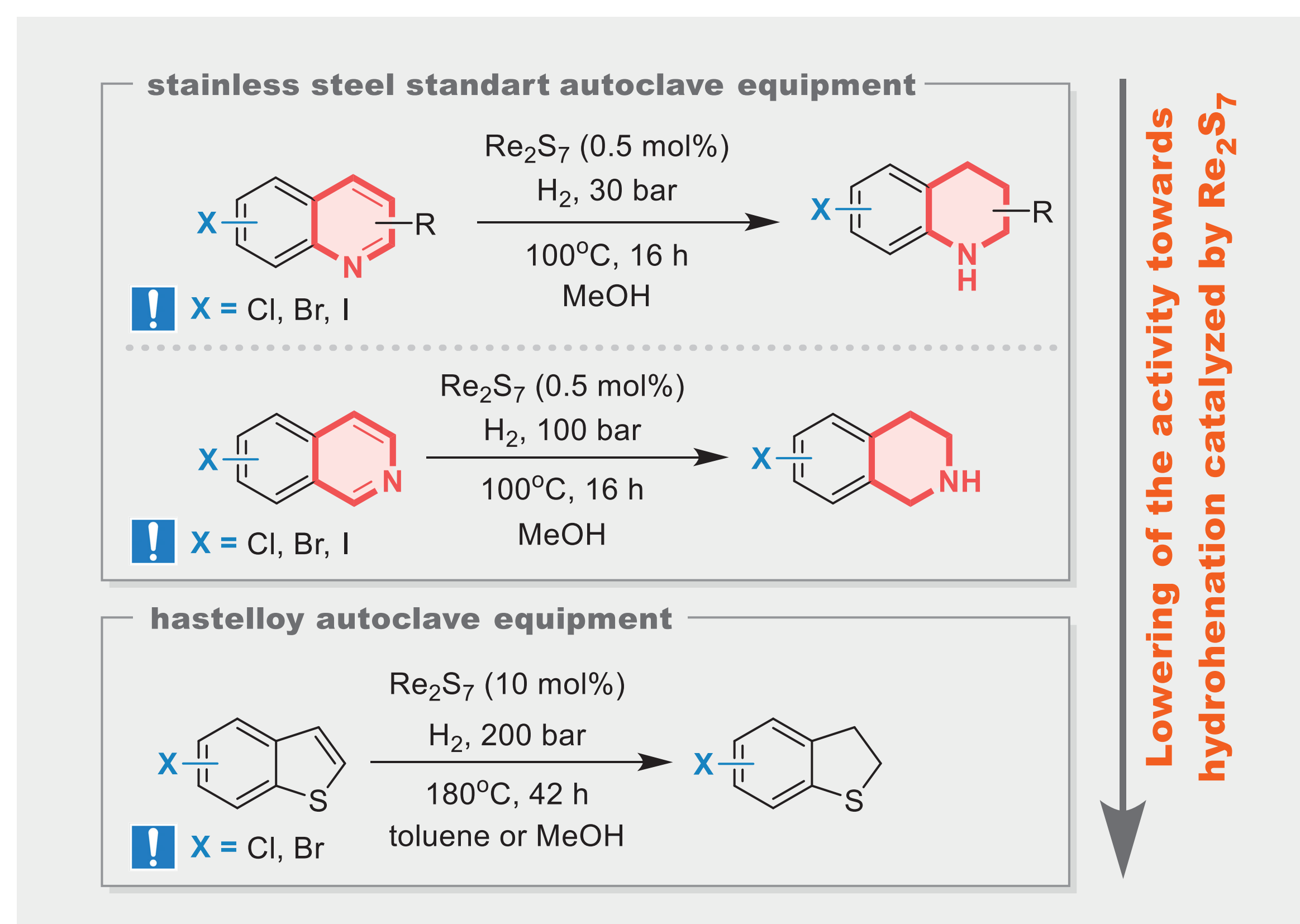
Where science stands and Where we step in

Re-BASED HYDROGENATION

STATUS QUO

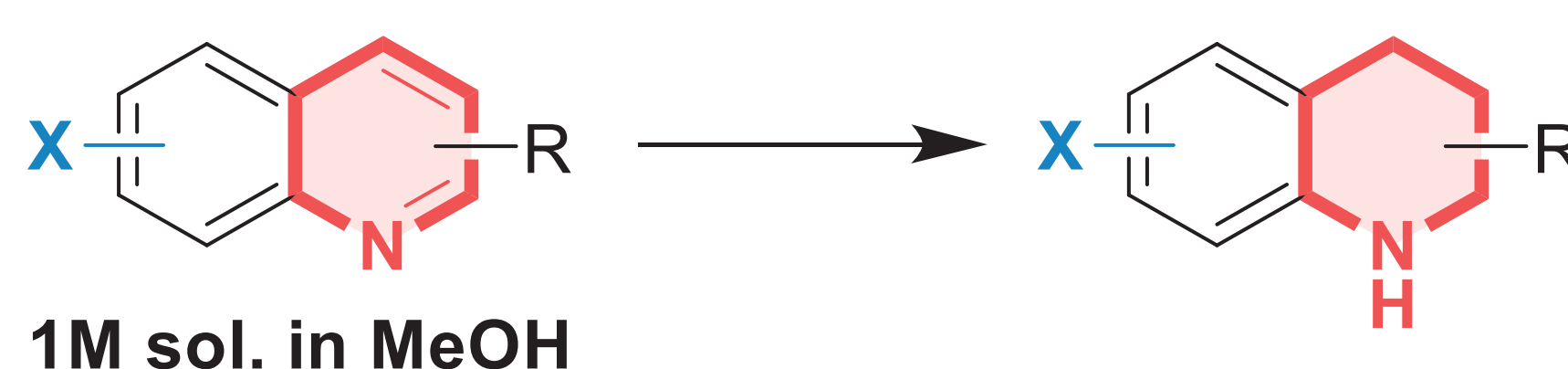


THIS STUDY



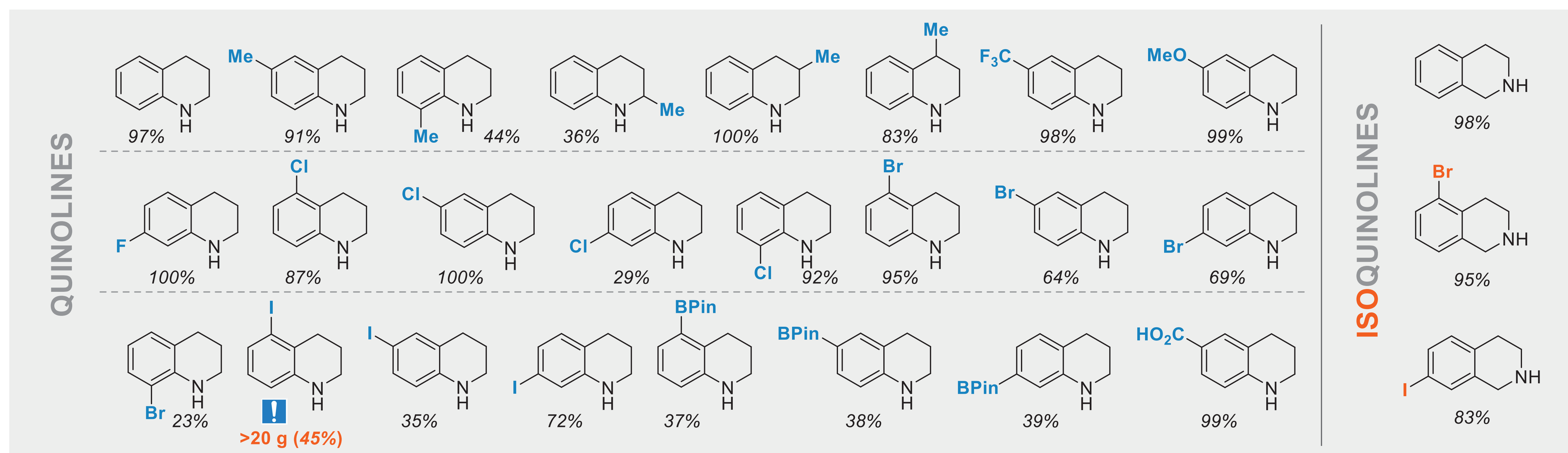
Substrate scope

QUINOLINES ISOQUINOLINES

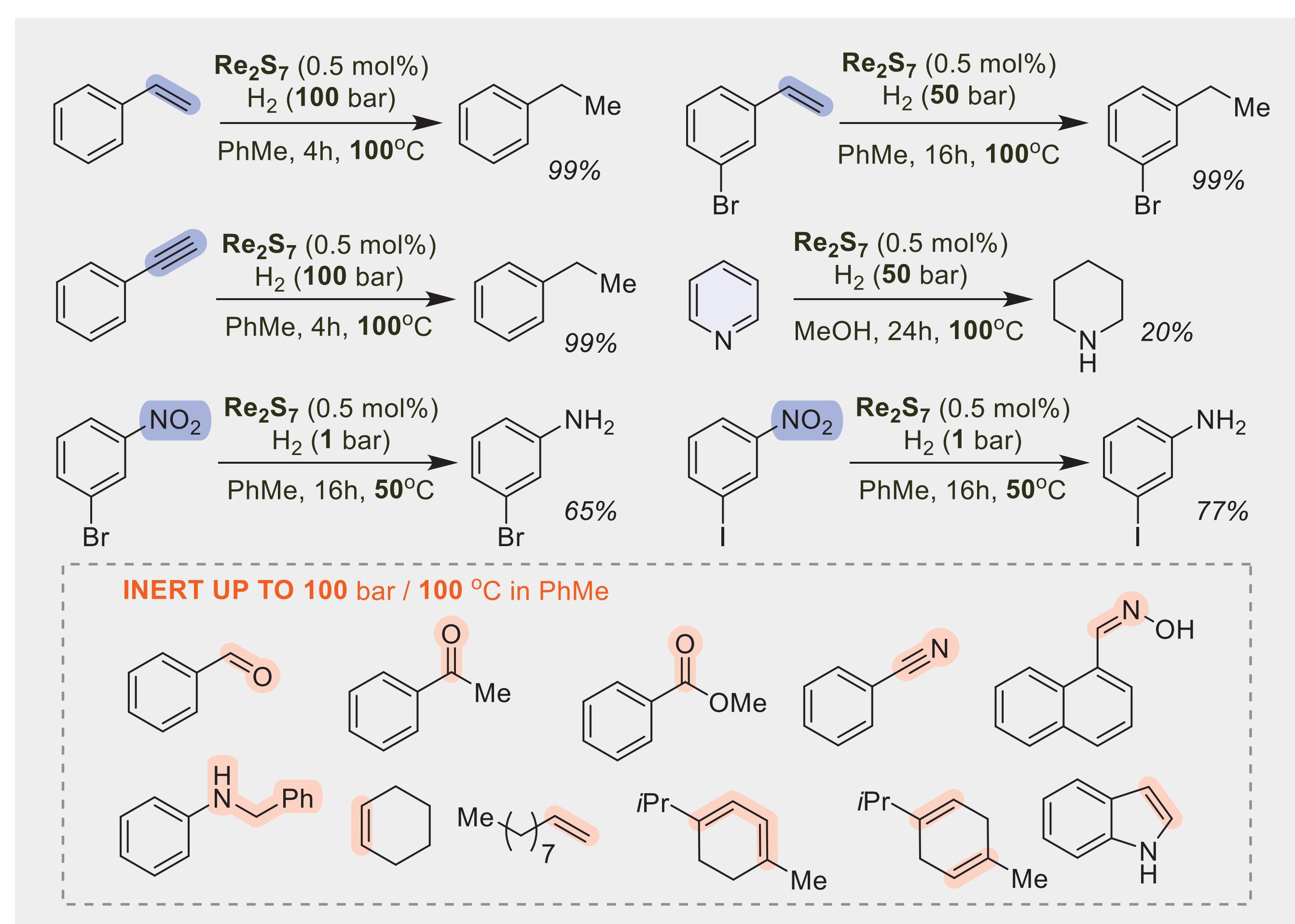


CONDITIONS:

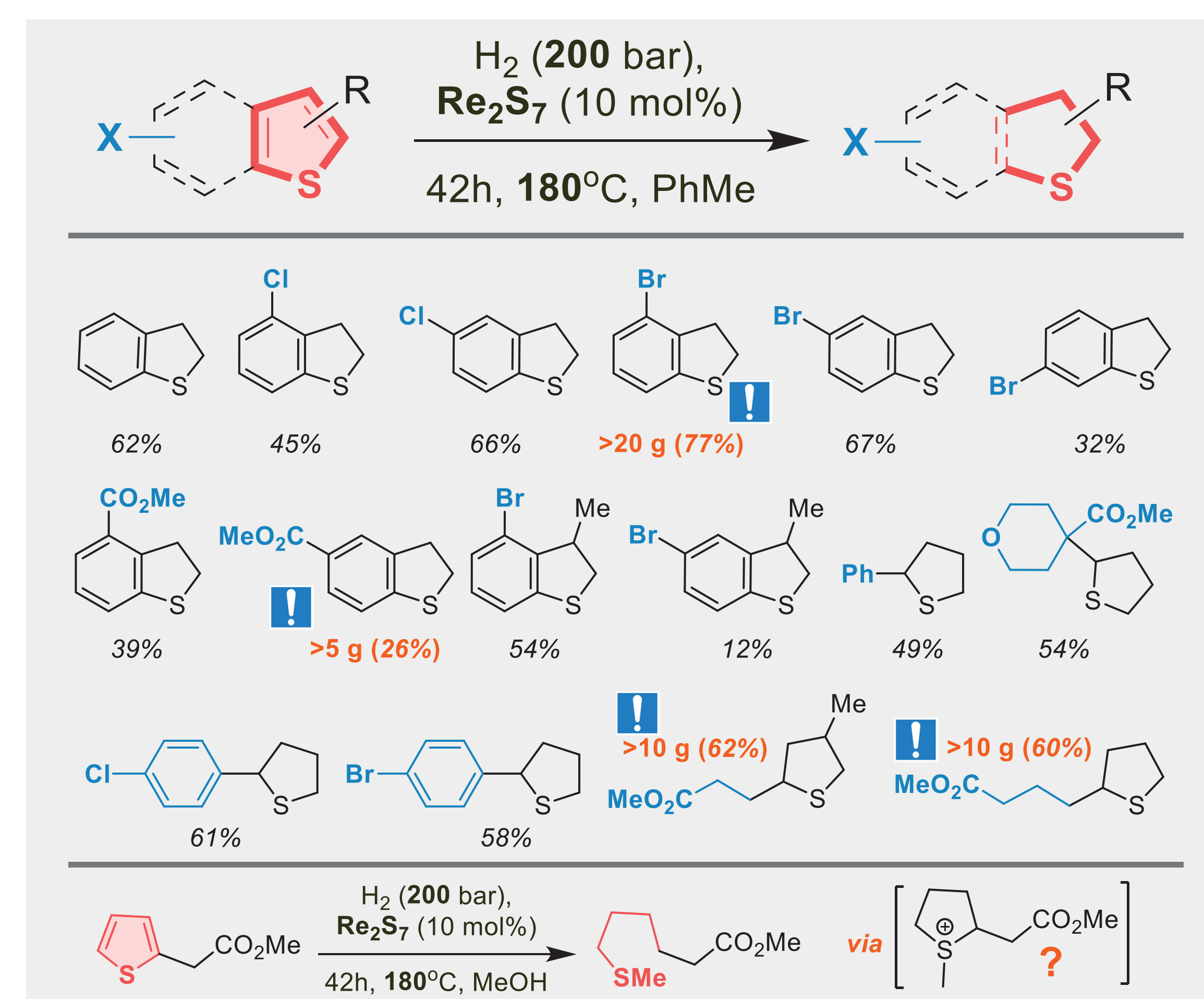
- **QUINOLINES** – H₂ (30 bar), Re₂S₇ (0.5 mol%), 16 hours, 100°C, MeOH
- **ISOQUINOLINES** – H₂ (100 bar), Re₂S₇ (0.5 mol%), 16 hours, 100°C, PhMe



COMMON FUNCTIONAL GROUPS REDUCTION



(BENZO)THIOFENES



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References

Rhenium heptasulfide: rebirth as a selective hydrogenation catalyst for organic synthesis.
ChemRxiv 2025, <https://doi.org/10.26434/chemrxiv-2025-c39sq>