**Ruthenium Complex Catalyzed Chemoselective Hydrogenation of α, β- Unsaturated Ketones Employing Methanol via Borrowing Hydrogen Strategy**

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**Abstract:** Designing inexpensive, bench-stable and base metal catalysts for the acceptorless dehydrogenation and hydrogen auto-transfer technique, is one of the most difficult and challenging tasks in catalysis. Herein, we synthesised acridine base SNS ligands and their commensurate Ru(II) complexes. After the characterization of these complexes is applied in selective hydrogenation of conjugated C=C bonds of ketones employing renewable feedstock via borrowing hydrogen strategy. Chalcones containing different electron-donating and electron-withdrawing substituents are well-compatible under our developed protocol.

**Keywords:** Ruthenium catalysis, Acceptorless dehydrogenation, Borrowing hydrogen, Tandem transformation, Chalcones, ketones.

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