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## Energy-efficient green catalyst: Supported gold, palladium nanoparticles

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We carried out the research on the supported gold nanoparticles catalyzed aminolysis of ester with inert tertiary amine by C-O and C-N bond activations. Compared with homogeneous catalyst-Pd(OAc)<sub>2</sub>, the most outstanding feature of supported Au nanoparticles catalyst is their superior ability in catalyzing aminolysis reactions at room temperature. And the catalytic performance of AuNPs didn't apparently decreased even after recycling five times. On the other hand, we carried out the research on the supported palladium nanoparticles catalyzed ortho-directed CDC reaction of alkylbenzenes and ortho-directed CDC reaction of aldehydes. It is found for the first time that metallic state palladium, Pd<sup>0</sup>, can catalyze the ortho-directed CDC reaction of alkylbenzenes or aldehydes for the synthesis of aromatic ketones via a Pd<sup>0</sup>/Pd<sup>II</sup>/Pd<sup>IV</sup> catalytic cycle.

### Biography

Yong-Sheng Bao has completed his PhD from NanJing University. He is Associate Professor of College of Chemistry and Environmental Science, Inner Mongolia Normal University. He has published more than 10 papers in reputed journals and has been serving as an editorial board member of repute.

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