

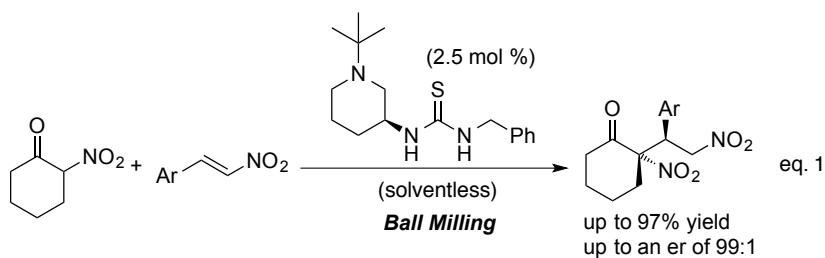
MECHANOCHEMICAL ACTIVATION IN ASYMMETRIC SYNTHESIS AND CATALYSIS

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Various organic transformations benefit from mechanochemical activation modes.¹ As illustrative examples, asymmetric Michael additions onto nitroolefins (eq. 1),² diastereo-selective alkylations,³ and solventless rhodium-catalyzed C–H-bond functionalizations⁴ will be presented here.



Finally, lignin degradation studies will be discussed.⁵

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² Jörres, M.; Mersmann, S.; Raabe, G.; Bolm, C. *Green Chem.* **2013**, *15*, 612 - 616.

³ Jörres, M.; Aceña, J. L.; Soloshonok, V. A.; Bolm, C. *ChemCatChem* **2015**, *7*, 1265 - 1269.

⁴ Hermann, G. N.; Becker, P.; Bolm, C. *Angew. Chem.*, accepted for publication.
(DOI: 10.1002/anie.201502536 and 10.1002/ange.201502536)

⁵ Kleine, T.; Buendia, J.; Bolm, C. *Green Chem.* **2013**, *15*, 160 - 166.