

Conférence – CEISAM – UMR CNRS 6230

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HYDROSILOXANES, HYPOPHOSPHITES: ALTERNATIVES IN REDUCTION ?

Reduction in organic synthesis could be a key transformation. A large number of efficient and selective reductants are available to synthetic chemists. However, it is necessary to imagine and elaborate new processes and reagents in order to reduce or eliminate the risks linked to the utilization of some hazard substances. Consequently, the development of reductive systems addressing ecologically and economically sustainable development is still required. An alternative to these technologies is the development of silicon chemistry associated to organometallic complexes. We successfully developed several methodologies with 1,1,3,3-tetramethyldisiloxane (TMDS) as reducing agent with special care to environmental impact. In this context, sodium hypophosphite, recently registered in REACH as a cheap and stable to air molecule, was also studied in biphasic systems.