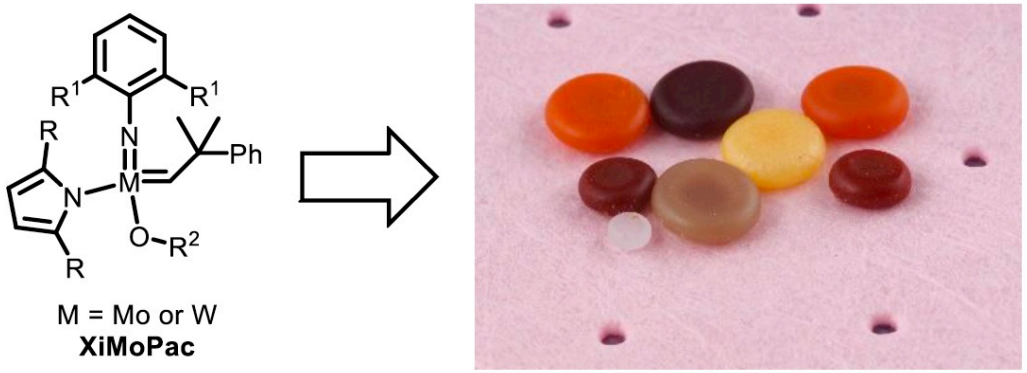
Easy-to-use bench stable preweighed pellets with Mo- / W- metathesis catalysts

J. B. Czirok[1,2], A. Bucsai[1,2], L. Ondi[1,2], G. Frater[1,2]

[1]XiMo AG, Horw, Lucerne, Switzerland, [2]XiMo Hungary Ltd, Budapest, Hungary

XiMo Hungary Ltd and XiMo AG were established in 2011. Our mission is to demonstrate[1,2] that the Mo-/W-catalyzed olefin metathesis is an expedient tool when combination of effectiveness, selectivity, affordability and sustainability is required in research, development or industrial production.

To this end, XiMo in collaboration with its Hungarian partner developed industrial technology for the multi kilogram-scale synthesis of Mo- and W-based metathesis catalysts. Moreover to facilitate their use and make them readily available for the entire chemical community, XiMo invented a physical stabilization for these often moisture sensitive organometallic complexes.



Formulation of the catalysts into easy-to-use paraffin pellets made Mo-/W-catalyzed olefin metathesis a readily accessible technology which can be carried out on the benchtop of every laboratory. Versatility of these newly developed reagents called XiMoPacs is illustrated by various reactions e.g. bifunctionalization of renewables, stereoselective transformations carried out outside the glovebox.[3,4] The improved air stability of the catalysts results from the advanced formulation allows synthetic chemists to carry out high-throughput discovery effortless.

The approach chosen to target the catalysts moisture sensitivity turned out to be broadly applicable which allows the transformation of divers sensitive reagents into their stable user-friendly alternatives as it is demonstrated by the formulation of the highly reactive and pyrophoric triethylaluminum or the highly air sensitive palladium based cross coupling catalysts.

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[3] Ondi, L. *et al. Org. Process Res. Dev.* **2016**, *20*, 1709.
[4] Hoveyda, A. H. *et al. Science* **2016**, *352*, 569.