

Organometallics Chemistry

(CHEM-753)

Online Lectures (OrganoCu+Zn)

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Periodic Table

s-Block metals

Group-I Group-II

d-Block metals

p-Block Elements

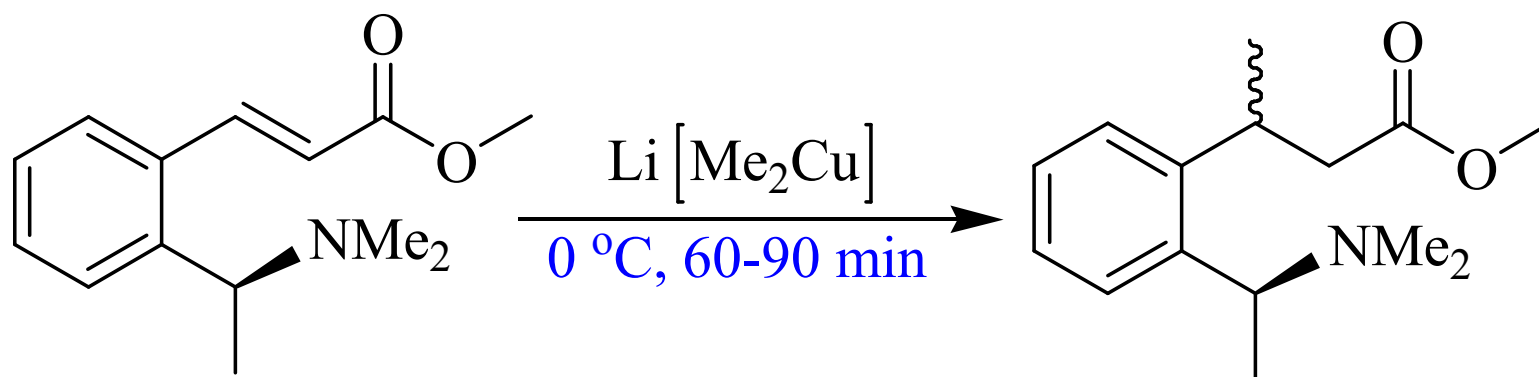
XIII XIV

H														
Li	Be											B	C	
Na	Mg											Al	Si	
		III	IV	V	VI	VII	VIII	IX	X	XI	XII			
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	
Fr	Ra													

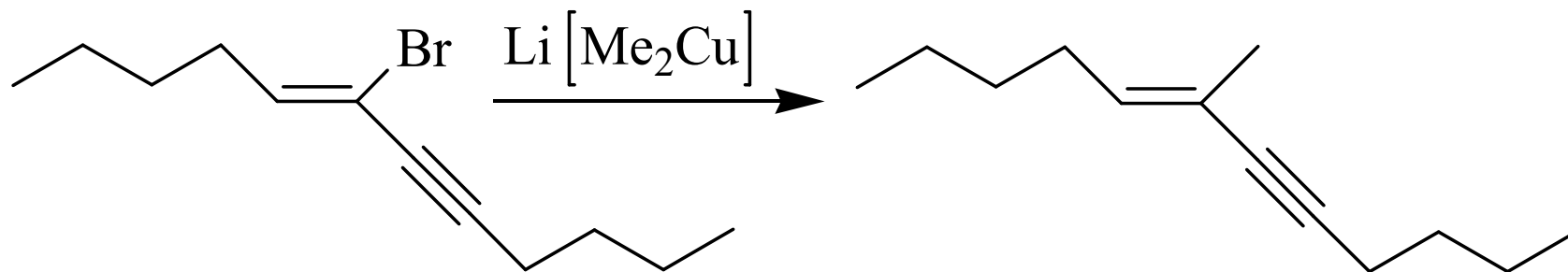
History of Gilman

- Henry Gilman (1893-1986) was the son of a tailor.
- He did his PhD in Chemistry in 1918 at Harvard University (USA).
- He did his Post-Doc under the supervision of Prof Victor Grignard at Germany in 1919 and moved to Iowa State University (USA) as Assistant Professor.
- He was promoted to Professor rank in 1923 by same University.
- Then he moved to DuPont Chemical Industry in 1929.
- He and Dr M S Kharash (another Post-Doc student of Prof Victor Grignard) founded *Journal of Organometallic Chemistry (JOC)* in 1936.
- He suffered with glaucoma (blind by one and eye) and lost the vision by other eye as well in 1947 (54 years of age).
- He published 1020 research articles out which 584 in the state of blindness.

Preparation & Applications

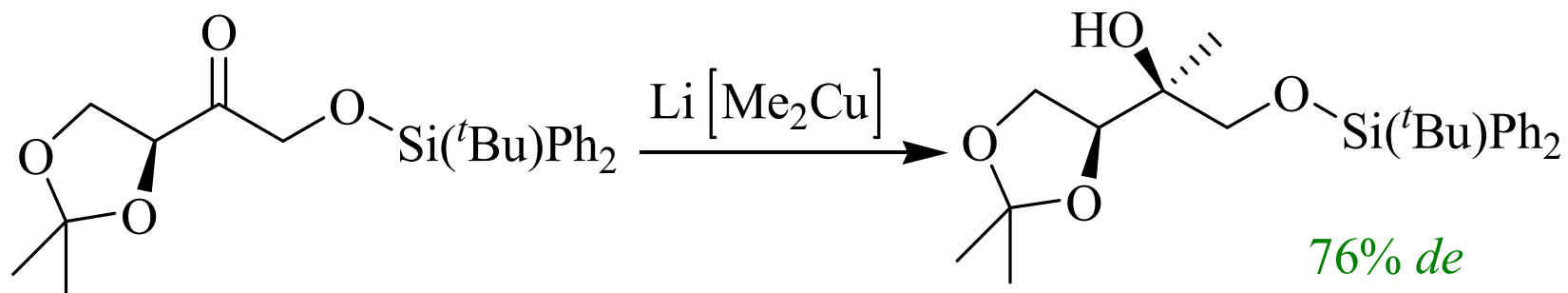


Th., **47** (1991), 4739

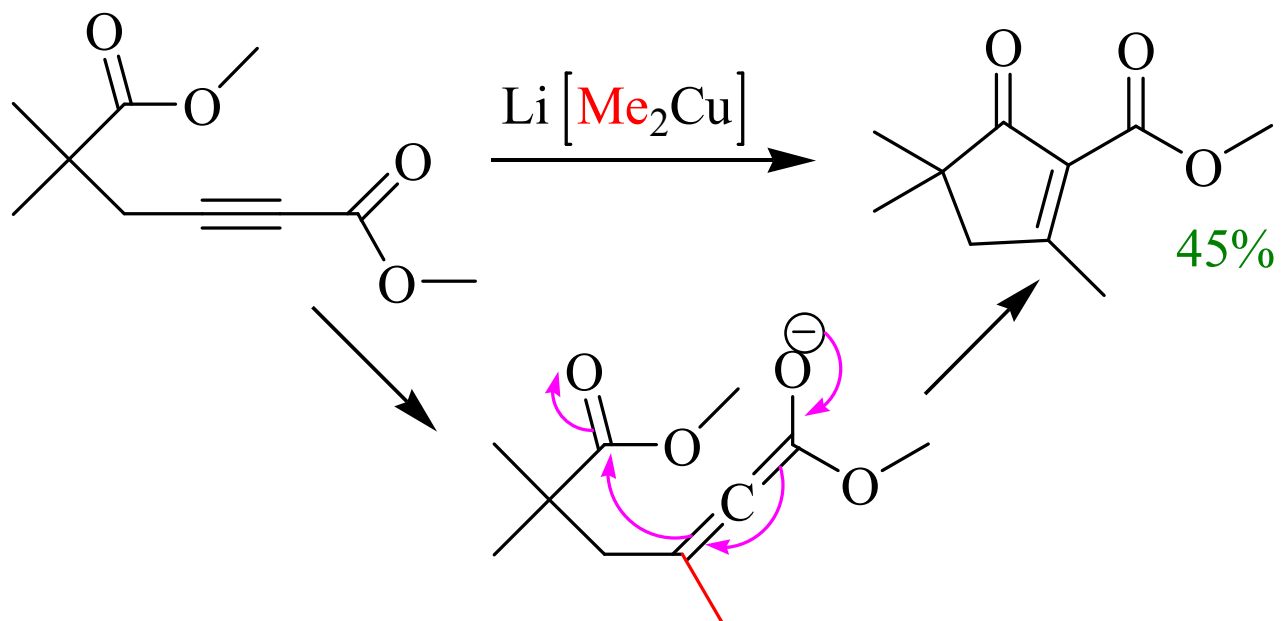


JOC., **53** (1988), 1839

Applications



Th. Asy., **3** (1992), 1511



Activation of Zn

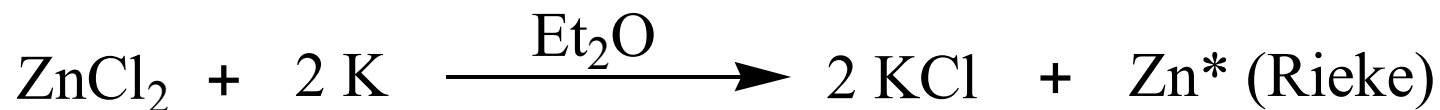
Corroded (Inactive) Zn powder



Acidic & Wet Zn Metal

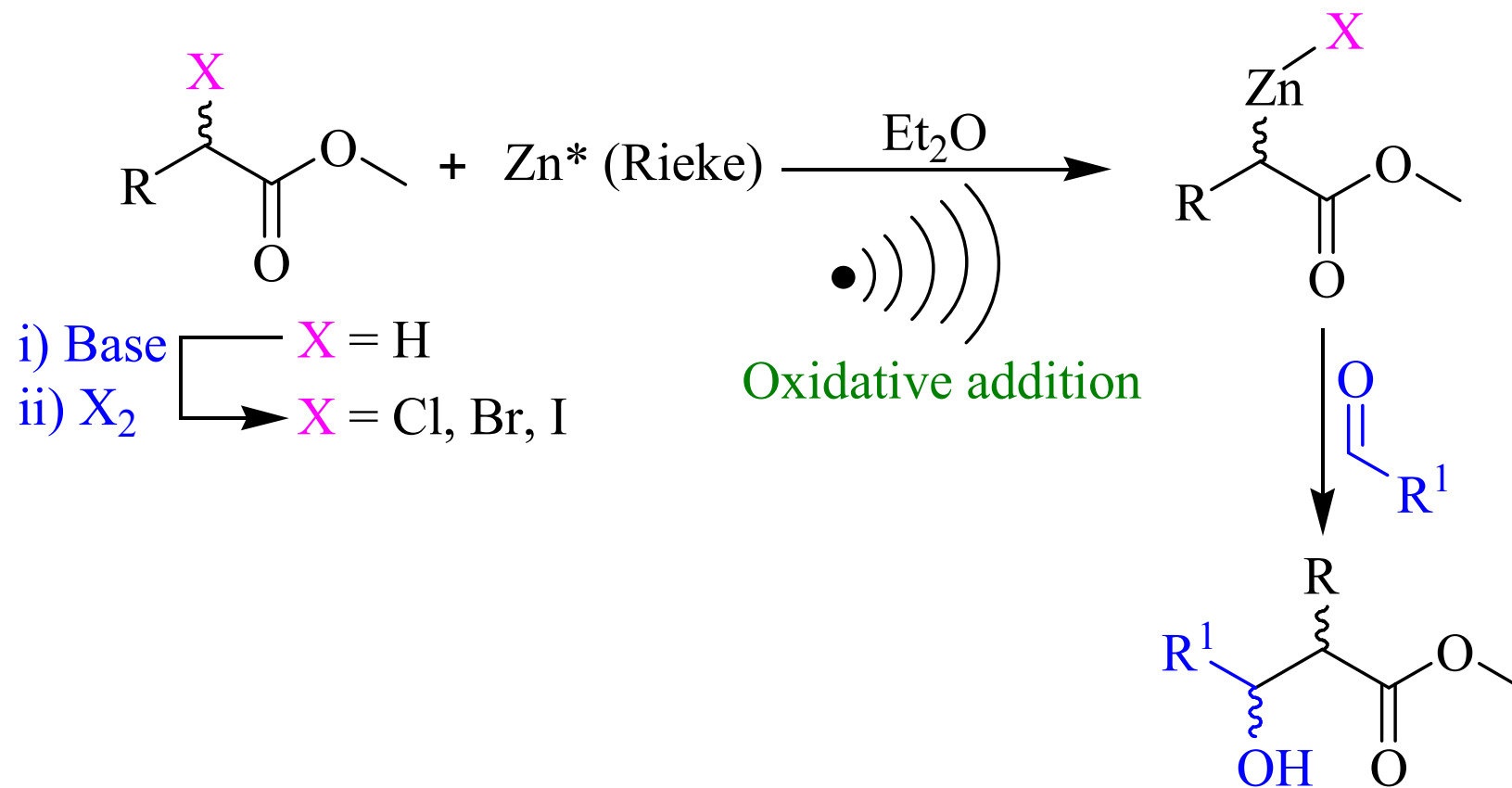
- 1) MeOH
- 2) Me₂CO
- 3) Et₂O

Activated Zn

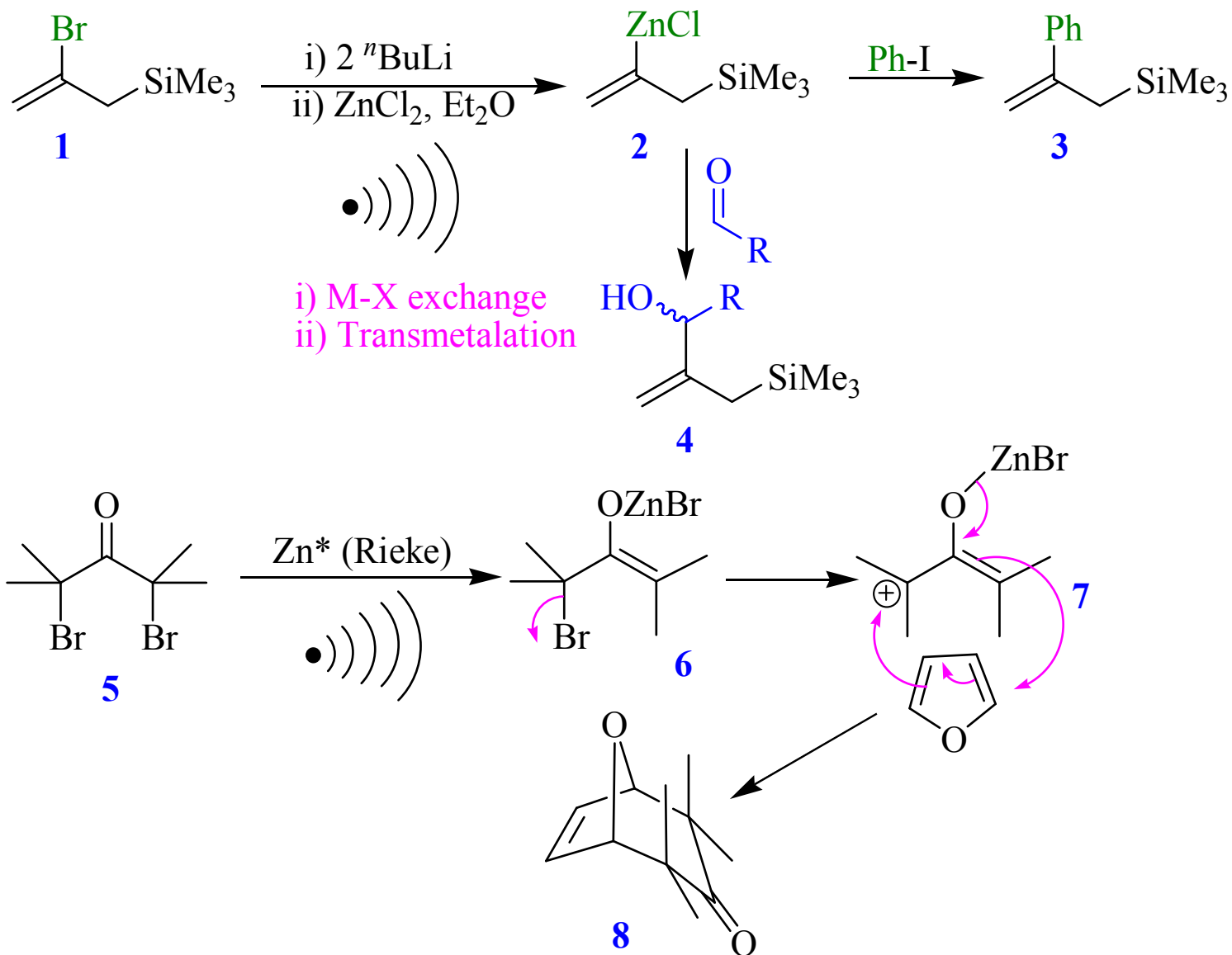


Aldrich Acta, **33**, 52, 2000

Reformatsky Reaction



Applications



Applications

