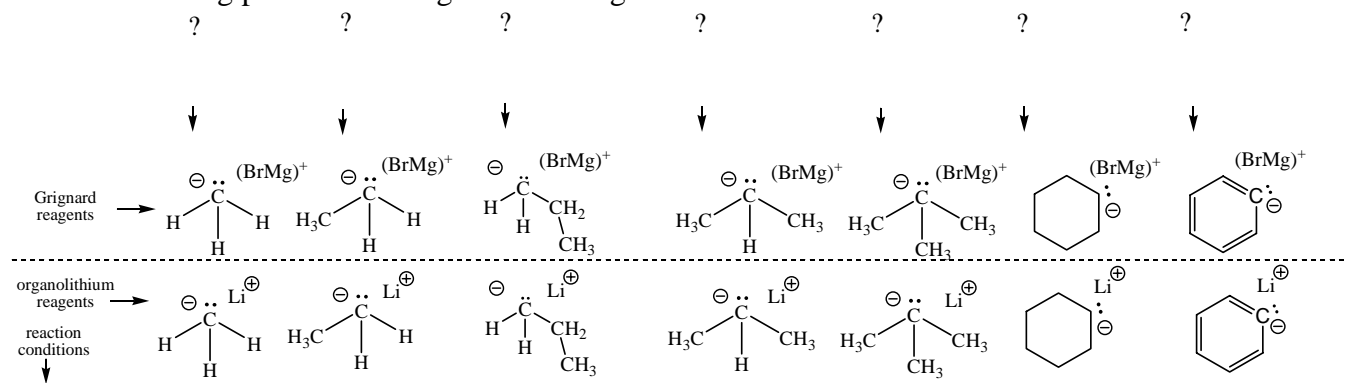


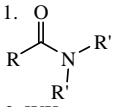
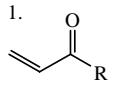


Organometallics (Mg and Li) – (except for reactions with RCO₂H, these reagents react in a similar manner)

Fill in the missing pieces in the organometallic grid below.



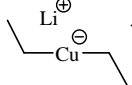
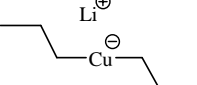
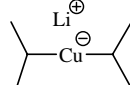
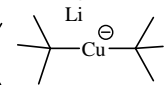
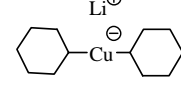
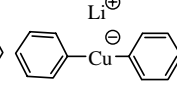
1. H ₂ C=O 2. WK	
1. 2. WK	
1. 2. WK	
1. 2. WK	
1. 2. WK	
1. 2. WK	
1. 2. WK	
1. 2. WK	

<p>1. </p> <p>2. WK</p>	
<p>1. </p> <p>2. WK</p>	
<p>1. </p> <p>2. WK</p>	
<p>1. </p> <p>2. WK</p>	
<p>0.5 eqs. CuBr make cuprates RMgBr works too</p>	

Only organolithium reagents

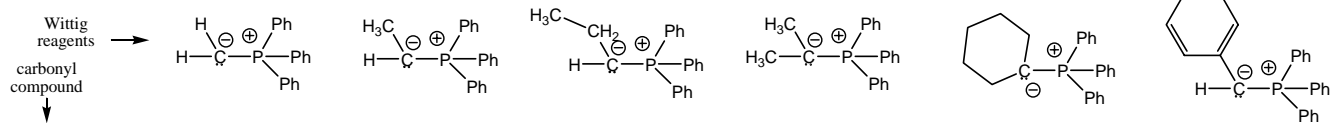
<p></p>	
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Cuprates – Organocopper reagents

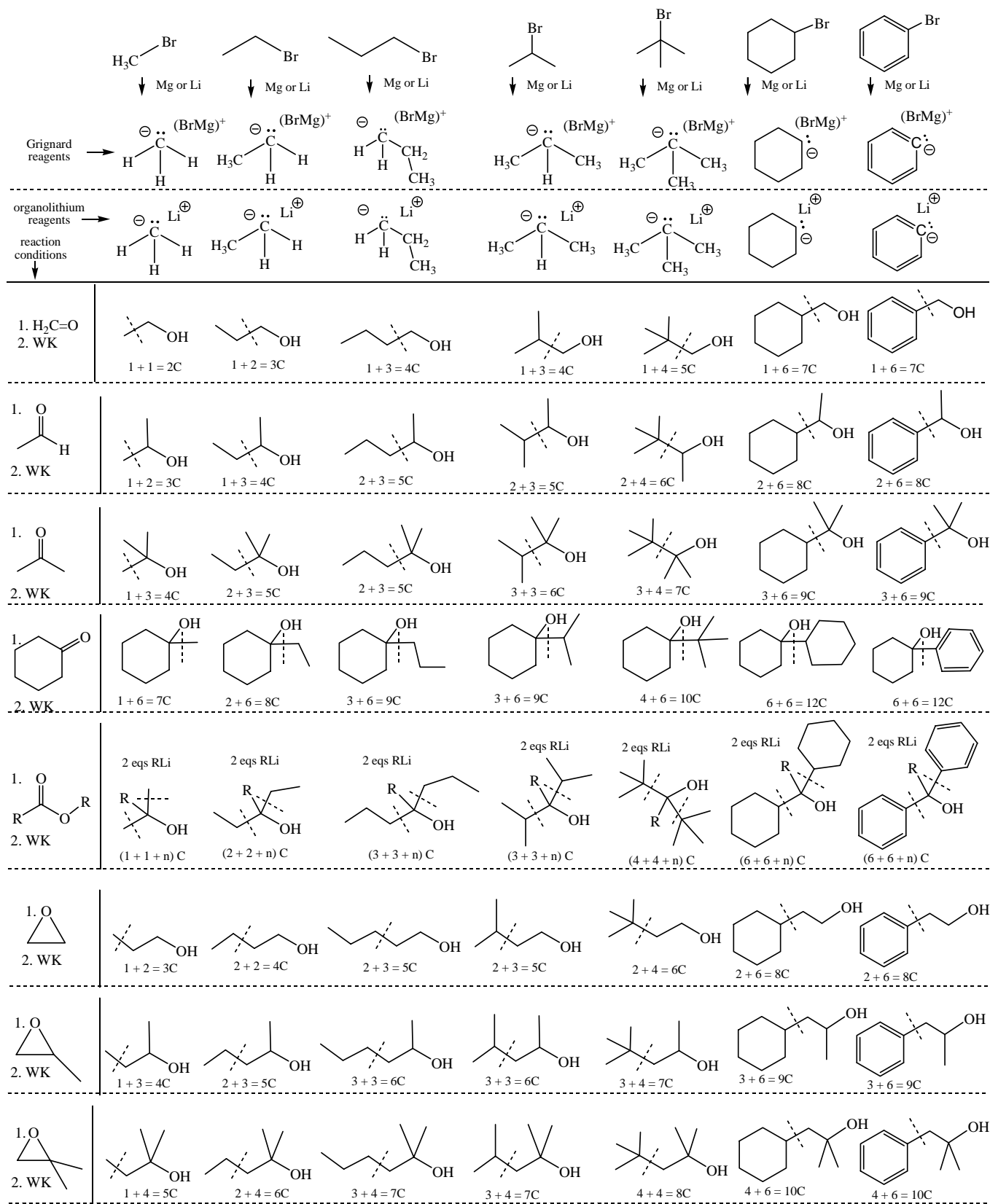
<p>cuprates →</p> <p>reaction conditions ↓</p>	<p>Li^{\oplus}</p> <p>$\text{H}_3\text{C}-\text{Cu}^{\ominus}-\text{CH}_3$</p>	<p>Li^{\oplus}</p> <p></p>	<p>Li^{\oplus}</p> <p></p>	<p>Li^{\oplus}</p> <p></p>	<p>Li^{\oplus}</p> <p></p>	<p>Li^{\oplus}</p> <p></p>	<p>Li^{\oplus}</p> <p></p>
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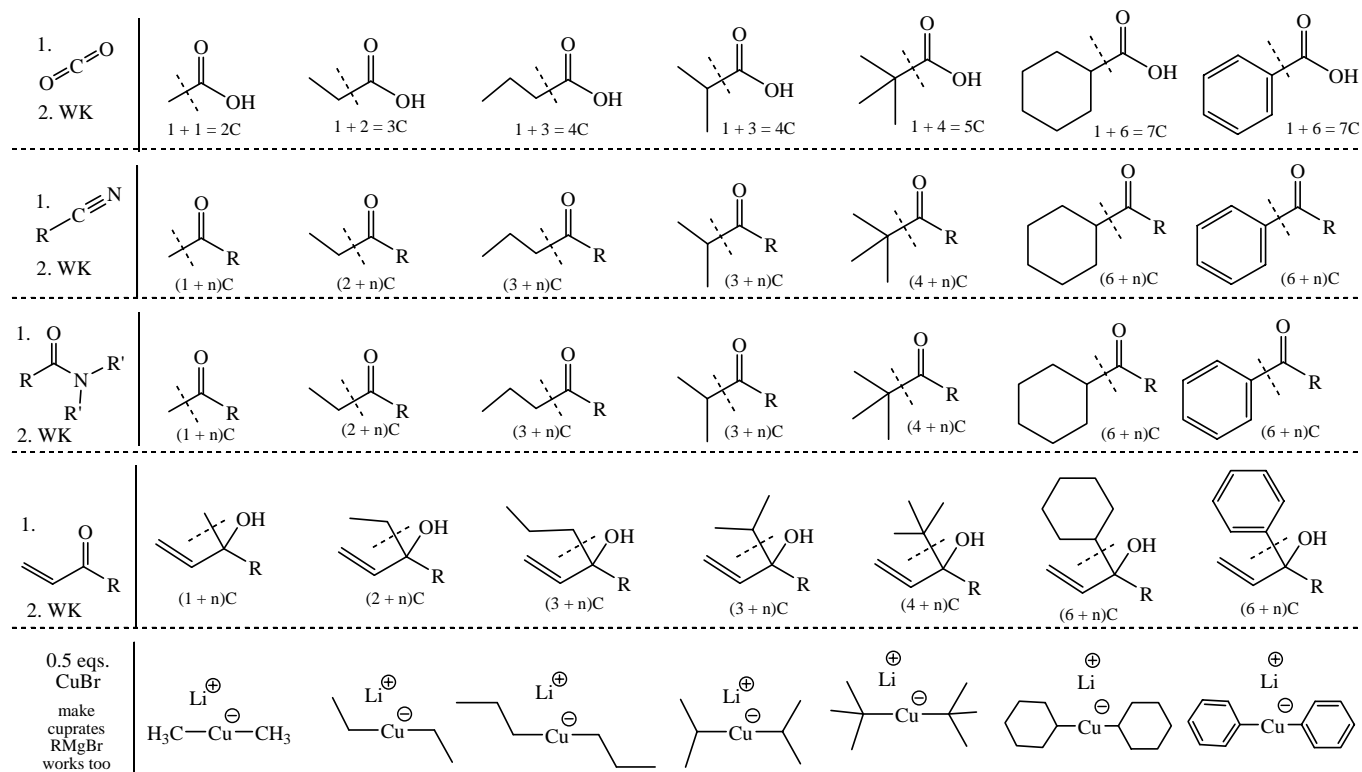
<p></p>	
<p></p> <p>alkyl coupling</p>	
<p></p> <p>conjugate addition</p>	

Wittig Reaction Sequence

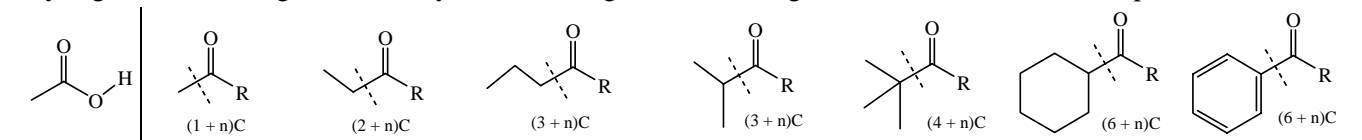


Possible answers for above grid

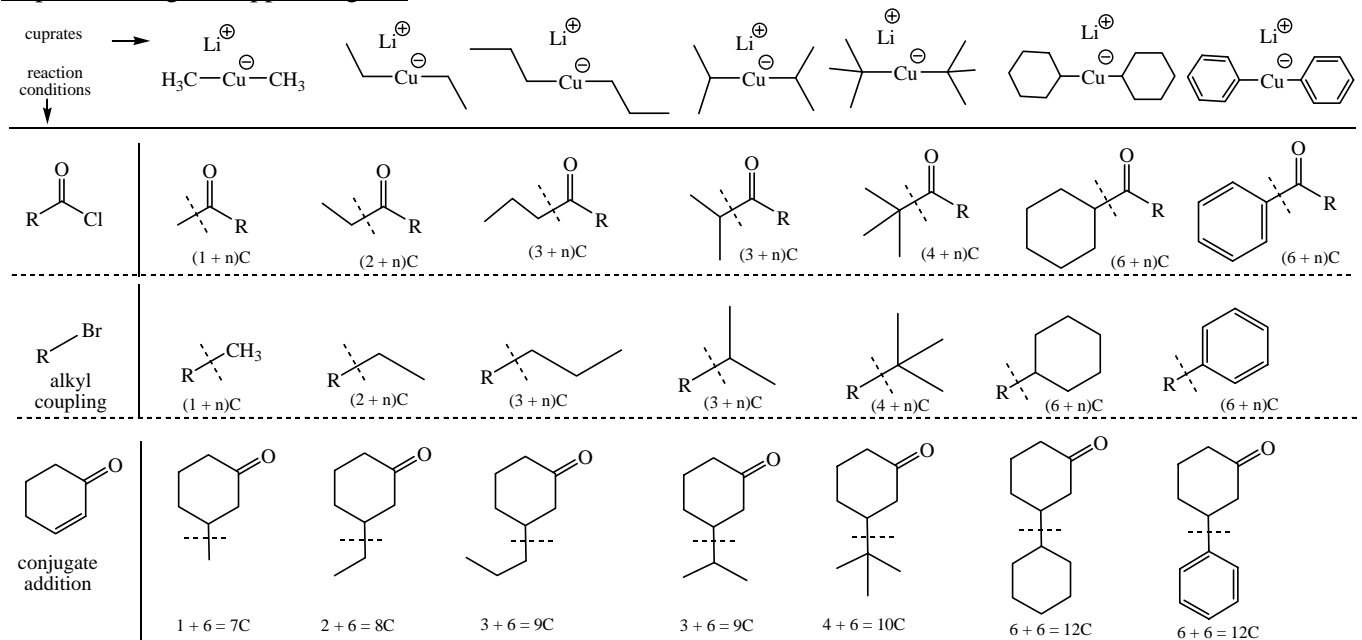




Only organolithium reagents (carboxylic acids + organolithium reagents → ketones, after workup)



Cuprates – Organocopper reagents



Wittig Reaction Sequence

