

Chemistry 4891K/6991K: Organometallics

Schedule Spring 2021

Class Period	Date	Topic	Reading
1	1/11	Basics	Chapters 1 and 2
2	1/13	Metal Alkyls	Chapter 3
3	1/18	NO CLASS YSU CLOSED	
4	1/20	Metal Hydrides, L-type ligands	Chapter 4
5	1/25	Phosphines and Ligand Exchange	
6	1/27	Pi complexes, ferrocene	Ch. 5 AND Ferrocene articles
7	2/1	Pi complexes, M-L multiple bonds	Ch. 11
8	2/3	Oxidative Addition	Ch. 6
9	2/8	Reductive Elimination, Characterizing organometallic complexes, Melanie Sanford Paper	Ch. 10 Camasso, Sanford. Science 2015 , 347, 1218-1220
10	2/10	Melanie Sanford Paper, migratory insertion	Ch. 7
11	2/15	Alpha, beta eliminations, review	
12	2/17	EXAM 1	
13	2/22	Outer sphere, intro to catalysis	Ch. 8 and Ch. 9
14	2/24	Cross Coupling 1	
15	3/1	Cross Coupling 2, Heck Rxn	
16	3/3	Reductive Coupling	Weix, Acc. Chem. Res. 2015 , 48, 1767-1775
17	3/8	Pi-allyl chemistry	
18	3/11	Pi-allyl chemistry, C-H functionalization	
19	3/15	C-H functionalization	
20	3/17	C-H functionalization	Paper Topics Due
21	3/22	C-H functionalization	
22	3/24	MCW and MSS Paper review	1) NATURE CHEMISTRY DOI: 10.1038/NCHEM.967 2) JACS 2015, 137, 3109-3118
23	3/29	Review	
24	3/31	Exam 2	
25	4/5	Hydrogenation	
26	4/7	NO CLASS YSU CLOSED	
27	4/12	Hydroformylation	Paper drafts due
28	4/14	Hydrofunctionalization	
29	4/19	Olefin Metathesis	
30	4/21	Olefin Polymerization	
31	4/26		
32	4/28		

Final Exam	5/3	FINAL EXAM	

Schedule is subject to change