

**Preliminary schedule for lab hours**

	Tue (13.00-16.30)		Thu (13.00-16.30)	Thu 9.00-12.30
<b>Oct 27</b>	Intro (online)	<b>Oct 29</b>	Day 1: G2 (B208)	Day 1: G1 (SnOW)
<b>Nov 3</b>	Day 1: G3 (C137)	<b>Nov 5</b>	Day 2: G2 (C137)	
	Day 2: G1 (B208)		Day 3: G1 (B208)	
<b>Nov 10</b>	Day 2: G3 (SnOW)	<b>Nov 12</b>	Day 3: G3 (B208)	
	Day 3: G2 (B208)			
<b>Nov 17</b>	Day 4: G1 (SnOW)	<b>Nov 19</b>	Day 4: G2 (SnOW)	
	Day 5: G3 (B208)		Day 5: G1 (B208)	
<b>Nov 24</b>	Day 4: G3 (SnOW)	<b>Nov 26</b>	Summary of results, report instructions (all groups, online)	
	Day 5: G2 (B208)			

SnOW: Student labs, meeting at student lab lobby

B208: 2nd floor, lab room along the corridor.  
Enter from student lab lobby, take the stairways up, then left and left

C137: Basement floor. Meeting at student lab lobby

**Contents of the lab days:**

Day 1: Synthesis of  $\text{YBa}_2\text{Cu}_3\text{O}_7$  (YBCO): 3-3.5 h

Day 2: Treatment of YBCO and synthesis of  $\text{Y}(\text{In},\text{Mn})\text{O}_3$  : 3-4 h

Day 3: Analysis of YBCO: 3.5-4 h

Day 4: Analysis of  $\text{Y}(\text{In},\text{Mn})\text{O}_3$  : 3-4 h

Day 5: Aqueous vanadium chemistry: 3-3.5 h

**Methods, equipments**

Day 1: Solid-state synthesis, ball milling

Day 2: Thermogravimetry and temperature-controlled reduction, synthesis: sol-gel

Day 3: Handling of liquid  $\text{N}_2$ , XRD, RedOx under inert conditions

Day 4: XRF, Solid-state Vis spectrometry

Day 5:  $\text{SO}_2$ -gas reduction, titration

