

SK2760 KURS-PM HT21

Week 35 2021	Time	Activity	Lecturer	Course Material
Mon 30 Aug	10:00 - 12:00;	LE,	MT	<ul style="list-style-type: none"> Introduction, Diagnostic Test (L0) Overview of Synthetic techniques, NP Characterisation tools (L1)
Wed 1 Sep	10:00 - 12:00;	LE	MT	<ul style="list-style-type: none"> Chemical Principles, Periodic Table, Atomic Structure, Orbitals, e-distribution, Ionic charges (L2)
Week 36 2021				
Mon 6 Sep	10:00 - 12:00;	LE	MT	<ul style="list-style-type: none"> Molecular Orbitals – MO Theory, Hybridisation, Molecular Structures, Polarity (L2)
Wed 8 Sep	10:00 - 12:00;	EX	MT	<ul style="list-style-type: none"> Chemical Nomenclature (Inorganic) (L3)
Week 37 2021				
Mon 13 Sep	10:00 - 12:00;	LE	MT	<p>(PROJECT Groups / TOPICS - Intro)</p> <ul style="list-style-type: none"> Solution Thermodynamics, Solubility, Precipitation, Acid-Base Equilibria (L4)
Wed 15 Sep	10:00 - 12:00;	LE	MT	<ul style="list-style-type: none"> Solution Thermodynamics, contd. (L4)
Week 38 2021				
Mon 20 Sep	10:00 - 12:00;	LE	MT	<ul style="list-style-type: none"> Microemulsion Synthesis, Surfactants, Organic nomenclature, Ternary phase diagrams (L5)
Thu 23 Sep	13:00 - 17:00;	LAB BIOX	MT + HB	<ul style="list-style-type: none"> Reduction in Solution; Reducing agents (L6) NP Characterisation 1 – Au NP Synthesis and DLS / Zeta potential (L7)
Week 39 2021				
Mon 27 Sep	10:00 - 12:00;	EX	MT	<ul style="list-style-type: none"> Microemulsion Synthesis, Surfactants, Organic nomenclature, Ternary phase diagrams (L5, Cont'd)
Wed 29 Sep	10:00 - 12:00;	LE	MT	<ul style="list-style-type: none"> Sol-gel Synthesis, Aqueous and non-aqueous precursors (L8)
Week 40 2021				
Mon 4 Oct	10:00 - 12:00;	LE	MT	PROJECT FOLLOW-UP
Tue 5 Oct	13:00 - 15:00	LE	MT	<ul style="list-style-type: none"> Thermolysis, precursors (L9) Self-Assembly / Controlled Assembly (L10)
Week 41 2021				
Mon 11 Oct	10:00 - 12:00	LE	MT	<ul style="list-style-type: none"> Electrochemistry, Electrochemical synthesis; Electroless Processes (L11)
Wed 13 Oct	10:00 - 12:00	EX	MT	<ul style="list-style-type: none"> Overview of techniques (L12)
Thu 14 Oct	13:00 - 17:00;	LAB BIOX	MT + BH	<ul style="list-style-type: none"> NP Characterisation 2 – FT-IR on citrate capped Au NPs (L13)
Week 43 2021				
Mon 25 Oct	08:00 - 16:00	EXAM	MT	Final EXAM - Project ORAL Presentations / Group work

BIOX	Nanochemistry Lab at BIOX
MT	Muhammet Toprak / toprak@kth.se / 0735519358
HB	Hazal Batili / batili@kth.se
BH	Bejan Hamawandi / bejan@kth.se
LE	Lecture
EX	Exercise / Exam
LA	Laboratory Theory + Practice/Demo
L0 – L13	Lecture materials uploaded under Modules at CANVAS