

Schedule for KZ8012 Introduction to Materials Chemistry, HT18

T=theory, E=exercise, S=seminar (C516N/ C513), L=Lab,

Lecturers: Aji Mathew (AM), Zhijian Shen (ZS), Alexander Lyubartsev (AL), Tamara Church (TC), Jekabs Grin (JG)

Lab and exercise assistant: Mirva Eriksson(ME), Chuantao Zhu (CZ)

Theory: 9 hp, Lab: 2 hp, Project work: 4 hp

| Date | 9.15-12 | 13-17 |
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| 5-nov | | T0: Intro (all) + T1: introduction to Mat chem (AM) C516N |
| 6 | T1: <i>Research Outlook in Materials Chemistry (09-11:00) (AM) C516N</i> | S0: Seminar assignments (ME+CZ): C516N L0: Project work assignments (ME+CZ) C516N |
| 7 | T2: <i>Nanosafety (AL) C516N</i> | |
| 8 | T3: Life cycle analysis of materials (invited lecture, Anna Björklund, KTH) C516N | T4 Life cycle analysis of materials (invited lecture, Anna Björklund, KTH) C516N |
| 9 | T5: Small molecules and bionanomaterials (AM) C516N | S1: Seminar preparation (ME+CZ) C513 L1: Project work (ME+CZ) C513 |
| 12 | T6: Polymers and Composites (AM) C516N | |
| 13 | T7: Spectroscopic techniques (TC) C513 | E1: Spectroscopy (TC) |
| 14 | T8: Surface properties and char. methods (AM) C513 | E3: AFM (CZ) |
| 15 | | |
| 16 | T9: Liquid st. synthesis and processing (ZS) C513 | T10: Solid state. synthesis and sintering (ZS) C513 |
| 19 | T11: Mech. properties and char. methods (ZS) C513 | E2: Mechanical props. (ZS) |
| 20 | T12: Metals (ZS) C513 | |
| 21 | T13: Glasses and ceramics (ZS) C516N | |
| 22 | T14: Nanomaterials (ZS) C513 | |
| 23 | T15: Solid Ionic conductors (JG) C516N | |
| 26 | T16: Membranes and adsorbents (TC) C513 | |
| 27 | T17: Optical and photonic materials (JG) C516N | |
| 28 | T18: Biomimetic and bioinspired materials (AM) C516N | T19: <i>Materials Chemistry and Society (13-15) Seminar (15-17) (AM) C516N</i> |
| 29 | <i>Re-Exam Solid State Chemistry</i> | L2: Project work (ME+CZ) |
| 30 | L3: Project work (ME+CZ) | L4: Project work (ME+CZ) |
| 3-dec | S2: Seminar preparation C516 N | S3: Seminar preparation C516 N |
| 4 | L5: Project work (ME+CZ) | L6: Project work (ME+CZ) |
| 5 | L7: Project work (ME+CZ) | L8: Project work (ME+CZ) |
| 6 | L9: Project work (ME+CZ) | L10: Project work (ME+CZ) |

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| 7 | S4: Seminar preparation C516 N | S5: Seminar preparation C516 N |
| 10 | S6: Seminar preparation C516 N | S7: Seminar preparation C516 N |
| 11 | S8 Seminar preparation C516 N | S9: Seminar preparation C516 N |
| 12 | S10: Seminar preparation C516 N | S11: Seminar preparation C516 N |
| 13 | S12: Seminar presentation and discussion C516N | S13: Seminar presentation and discussion C516N |
| 17 | L11: Project work (ME+CZ) | L12: Project work (ME+CZ) |
| 18 | L13: Project work (ME+CZ) | L14: Project work (ME+CZ) |
| 19 | L15: Project work (ME+CZ) | L16: Project work (ME+CZ) |
| 20 | L17: Project work (ME+CZ) | L18: Project work (ME+CZ) |
| 21 | L19: Project work (ME+CZ) | L20: Project work (LCA, Anna Björklund) |
| 20 | <i>Holidays</i> | |
| 21 | <i>Holidays</i> | |
| 22 | <i>Holidays</i> | |
| 23 | <i>Holidays</i> | |
| 26 | <i>Holidays</i> | |
| 27 | <i>Holidays</i> | |
| 28 | <i>Holidays</i> | |
| 29 | <i>Holidays</i> | |
| 30 | <i>Holidays</i> | |
| 2-jan | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 7 | | |
| 8 | | |
| 9 | L21: Presentation project work C516N | L21: Presentation project work C516N |
| 10 | Course overview discussion (AM/ZS) C516N | |
| 12 | | |
| 15 | Examination (9-14) C516N | |