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| 1. Course title: Chemical Experiments | | | | |
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| 2. Code: | | 3. Type (lecture, practice etc.): laboratory practice | | |
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| 4. Contact hours: 2 hoursper week | | 5. Number of credits (ECTS): 2 | | |
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| 6. Preliminary conditions (max. 3):   * General and Inorganic Cemistry III. laboratory practice | | | | |
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| 7. Announced:fall semester, spring semester, both | | | | |
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| 8. Limit for participants: 8 | | | | |
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| 10. Responsible teacher (faculty, institute and department):  Dr. Petőcz György Faculty of Science, Institute of Chemistry, Department of Inorganic Chemistry | | | | |
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| 11. Teacher(s) and percentage: | | Dr. György Petőcz | | 100 % |
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| 12. Language:English | | | | |
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| 13. Course objectives and/or learning outcomes:  Objectives: The laboratory practice intends to introduce students to the world of spectacular chemical experiments.  Learning outcomes: Based on their previous knowledge and laboratory experience students will be able to run complicated chemical reactions alone and present them to the audience. | | | | |
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| 14. Course outline   1. Laboratory safety – protocols and rules. 2. Code writing in the lab; preparation of sparkler. 3. The reaction of zinc and sulphur; preparation of chemical and friction matches. 4. Experiments with chlorine gas. 5. Barking; sparkling rain; generation of chlorine dioxide and its reactions; experiments with acetylene; preparation of gunpowder 6. Drying-rinsing substance; storm in the test tube; flame thrower with candle-grease; traffic lights; reaction of potassium permanganate with glycerol. 7. BZ-reaction; colour changing solution; elephant toothpaste; glowing fern. 8. The death of gummy bear; melting of test tube; Pharaoh's serpent, black serpent. 9. Thermite reactions; smoke bomb. 10. Brilliance of Tami; flash; 1 drop of water; fire starting with water; volcanic eruption. 11. Pyrophoric iron; melting point of gallium and the Wood's metal; lighting of pencil-sharpener; the silver mirror test. 12. Chemiluminescence; preparation of gun cotton (nitrocellulose). 13. Material flickering out; popping powder; thermal decomposition of lead azide. | | | | |
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| 15. Mid-semester works  Attending lectures is highly recommended. | | | | |
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| 16. Course requirements and grading  Grading is according to the laboratory reports, the introduced experiments and the work activity during the laboratory practices. | | | | |
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| 17. List of readings  Laboratory protocols week by week with detailed descriptions of the experiments | | | | |
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| 18. Recommended texts, further readings | | | | |
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| **Date** | 13 April, 2017 | **Prepared by** |  | |
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| **Endorsed by** | | |  | |
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