

Syllabus of Organic Chemistry Lab Work 1

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| Subject/ SKS | : Kim 126/ 1 |
| Prerequisite | : General Chemistry Lab Work 1 & 2 |
| Semester | : 3 |
| Competency | : - Students able to purifying solid organic compounds by recrystallization and determine the melting point - Students can do the synthesis of organic compounds as obtained by the application of the theory, and to characterize the extent of the physical properties of the synthesis products. - Students can design and conduct simple experiments. |

| Topics | Indicator | Learning Process | Assessment | | week | Relevant Reading |
|--|---|---|---------------------|--------------------|----------------|------------------|
| | | | Kinds of assessment | Type of Instrument | | |
| Introduction to work in organic chemistry laboratory | Be trained in handling of various chemicals Understand using laboratory equipment found in this laboratory Understand proper laboratory report format to be use | 1. Assistance 2. Give information of laboratory instructions | -- | -- | (1) 100 mnt | 1 |
| | | 1. Introduction 2. Give explanation of - Laboratory preparations - Writing reports | -- | -- | (2) 100 mnt | 1 |
| 1. Pretest | | Pretest | Test | Essay | (3) 100 mnt | 1,2,3,4,5 |

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|---|--|--|--------------------------|--------------------|-----------------------|-----------|
| 2. Recrystallization and Determination of Melting Point a. Recrystallization b. Determination of melting point | Student able to determine solvents that are most commonly used for recrystallization, able to purifying solid organic compounds by recrystallization and determine the melting point | 1. pretest 2. practice 3. writing observation sheet 4. writing report | test Performance test | Essay Worksheet | (4) 100 mnt | 1,2 |
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| 3. Synthesis of Organic Compound a. Synthesis of Chloroform b. Synthesis of Amyl acetate c. Synthesis of phenyl benzoate d. Synthesis of acetone-2,4-dinitrophenylhydrazo- -ne e. Synthesis of Benzylaniline | Students able to synthesis organic compounds, and to characterize the extent of the physical properties of the synthesis products | 1. pretest 2. practice 3. writing observation sheet 4. writing report | Test Performance test | Essay Worksheet | (5-10) 6x100 mnt | 1,2,3,4,5 |
| 4. Free Choice Practicum | Students can design and conduct simple experiments | 1. to design simple experiment 2. practice 3. writing observation sheet 4. writing report | Performance test | Essay Worksheet | (11-13) 1x 100 mnt | 1,2,3,4,5 |
| 6. Remedial | | | | | (14) | |
| 7. Final Evaluation | | Final examination | Performance test | Worksheet | (15) 100 mnt | 1,2,3,4,5 |

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| | | | Test | objective | (16) 100 mnt | |
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Reference

1. C. Budimarwanti (2010) *Handout of Organic Chemistry Lab. Work 1* . FMIPA UNY

Additional reference

2. Doyle Mungal. 1980. *Exsperimantal Organic Chemistry*. New York: John Wiley and Sons.

3. Furniss, B.S, P.W.G. Smith, A.R. Tatchel.1978. *Vogel's Textbook of Practical Organic Chemistry*. Fourth edition. London: Longman Group Limited.

4. Raymound, B. S. 1971. *Exsperimantal Organic Chemistry*. New York: Barnes and Nobel Publisher

5. Rajak Bansal. 1980. *Laboratory Manual in Organic Chemistry*. New Delhi: Wiley Eastern Limited.

Responsible

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