



PROGRAMS AND BIBLIOGRAPHY

Subject	
Code	Name
QO620	Organic Chemistry Experimental II

Vector
OF:S-1 T:000 P:001 L:005 O:002 D:000 HS:008 SL:006 C:008 AV:N EX:S FM:75%

Pre requirement
QG650 QO423 QO424

Summary
Qualitative analysis of organic compounds using physical and chemical procedures. Projects involving organic chemistry synthesis and natural products.

Program
<ol style="list-style-type: none">1. Presentation, objectives and characteristics of QO620 course;2. Laboratory safety;3. Qualitative organic chemistry analysis;4. Preliminary tests (sodium fusion, ignition, Beilstein, solubility);5. Specific tests (insaturations, alcohols, halides, nitro group, ketones and aldehydes, carboxylic acids and derivatives, phenols, amines);6. Analysis of unknown samples;7. Projects involving organic synthesis and natural products;8. Three or four step synthesis of natural products, drugs, biologically active compounds or compounds of interest for spectroscopic studies;9. Characterization of the synthesized compounds using spectroscopic techniques: infrared, ^1H and ^{13}C nuclear magnetic resonance, and mass spectrometry.

Bibliography
<ol style="list-style-type: none">1. Pavia, D. L.; Lampman, G. M.; Kriz, G. S.; Engel, R. G; Introduction to Organic Laboratory Techniques, 3rded., Saunders College Publishing, Philadelphia, 1999.2. Shriner, R. L.; Fuson, R. C.; Curtin, D. Y.; Morrill, T. C.; The Systematic Identification of Organic Compounds, 6th ed., John Wiley & Sons, New York, 1980.3. Vogel, A. I.; Textbook of Practical Organic Chemistry, 5th ed., Longmans, London, 1989.4. Pavia, D. L., Introduction to Spectroscopy, 2nd. ed. Saunders College Publishers, Philadelphia, 1996.5. Silverstein, R. M., Bassler, G. C. Morrill, T. C., Spectrometric Identification of Organic Compounds, 4th. Ed. John Wiley, New York, 1997.

Evaluation criteria
For grading policy, see: Regimento Geral de Graduação, Seção I – Normas Gerais, Capítulo V – Da Avaliação do Aluno na Disciplina. Students are required to attend 75 % of the lectures. For further details, see: Regimento Geral de Graduação, capítulo VI, seção X, artigo 72.