UNIVERSIDADE ESTADUAL DE CAMPINAS
INSTITUTO DE QUÍMICA

PROGRAMS AND BIBLIOGRAPHY

Subject	
Code	**Name**
QI244	Experimental Inorganic Chemistry

Vector
OF:S-2 T:000 P:000 L:004 O:000 D:000 HS:004 SL:004 C:004 AV:N EX:S FM:75%

Pre requirement	QG101 QG102/QG108 QG109

Summary

Fundamental concepts involved in chemical reactions: reactivity of species, equilibrium, stoichiometry, oxi-reduction, yield of reaction, chemical kinetics and catalysis. Reactivity of metals. Preparation of complexes of transition metals applying ligand field theory (ligand effect, coordination number and color).

Program

Studies concerning physical and chemical properties, such as: melting point, liquefaction, combustion, oxidation, decomposition and chemical equilibrium.

Synthesis and characterization of solids and inorganic polymers, complexes of transition metals and/or organometallic (d-block). Studies about their reactivity.

Inorganic compounds with application in: catalysis, photocatalysis, energy conversion, magnetism, sensors, electrochemistry, optics and other.

Industrial manufacture process of strategic inorganic compounds for national industry.

Bibliography

Textbooks and Supplemental Readings

Textbooks and reference materials selected by the Professor.

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.