University of Pretoria Yearbook 2021

Electrometallurgy 700 (NEL 700)

Qualification	Postgraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	30.00
NQF Level	08
Programmes	BEngHons Metallurgical Engineering
	BScHons Applied Science Metallurgy
Prerequisites	Geen voorvereistes.
Contact time	48 contact hours per semester
Language of tuition	Module is presented in English
Department	Materials Science and Metallurgical Engineering
Period of presentation	Year

Module content

At the end of the module, students should be able to conceptualise and design new electrometallurgical processes and improve the operation of existing processes through an understanding of the basic principles of the thermodynamics and kinetics of electrochemistry, measurement techniques used in electrochemistry, and considering the principles of electrochemical reactor design, different electrode and cell configurations, role of additives to electrolytes, role of impurities in the electrowinning process, the steps involved in electrocrystallization processes and present practices used for the electrowinning of metals such as copper, nickel, cobalt, zinc, manganese and gold.