

University of Pretoria Yearbook 2017

Hydrometallurgy 322 (NHM 322)

Qualification Undergraduate

Faculty Faculty of Engineering, Built Environment and Information Technology

Module credits 16.00

Programmes BEng Metallurgical Engineering

BEng Metallurgical Engineering ENGAGE

Prerequisites (NPT 220) and (NEC 310)

Contact time 3 lectures per week, 3 practicals per week

Language of tuition Module is presented in English

Academic organisation Materials Science and Metallur

Period of presentation Semester 2

Module content

Merits of hydrometallurgy relative to other extraction methods. Unit processes in hydrometallurgy. Chemical principles of hydrometallurgy. Chemistry of important metals and lixiviants. Application of chemical principles to: leaching; purification and upgrading of leach solutions (precipitation, solvent extraction, ion exchange, activated carbon); product recovery from solution (precipitation, reduction). Relevant analytical methods.

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