Surface analysis of materials

Lecturers
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Course mnemonic
CHIM-F438

ECTS credits
5 credits

Language(s) of instruction
English and Unknown

Course period
See programme details

Course content

Description and definition of "a surface" Interaction between X-rays, electrons and materials Theory and description of scanning electron microscopy Theory and description of X-ray photoelectron spectroscopy (XPS) Theory and description of Auger electron spectroscopy (AES) Theory and description of SIMS Case studies : corrosion, polymer surface analysis, surface segregation,...

Objectives (and/or specific learning outcomes)

Give a precise description of the major surface analytical techniqes. A the end of the course the student should have a good understanding of the principles of each technique, and should be able to apply them to a practical surface analysis problem

Teaching method and learning activities

oral lectures + demonstration in front of the instruments

References, bibliography and recommended reading

Surface Analytical techniques (Riviere) Handbook of Surface and Interface Analysis (Riviere / Myhra)

Other information

Contact(s)

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Evaluation method(s)

Oral examination

Evaluation method(s) (additional information)

oral exam

Programmes

Programmes proposing this course at the faculty of Sciences

MA-CHIM | Master in Chemistry | finalité Research/unit 1, finalité Teaching/unit 1 and finalité Professional/unit 1

Programmes proposing this course at the Brussels School of Engineering

MS-NATE | Specialized Master in Nanotechnology | unit U