

INTERNATIONAL MASTER THESIS PROJECTS

Topic & Application	Name Lab	Credits	Contact person
Identification of bioactive compounds from medicinal plants Apply	Animal Physiology and Neurobiology	45-60	Walter Luyten (walter.luyten@kuleuven.be)
Discovering the function of novel candidate bioactive peptides Apply	Animal Physiology and Neurobiology	45-60	Walter Luyten (walter.luyten@kuleuven.be)
Structure and dynamics of colloidal platelet-rod mixtures Apply More info	Laboratory for Soft Matter and Biophysics	45-60	Pavlik Lettinga (pavlik.lettinga@kuleuven.be)
Heliospheric evolution of CME's Apply	Centre for Mathematical Plasma Astrophysics	45	Stefaan Poedts (Stefaan.poedts@kuleuven.be)
Interplanetary transport of solar energetic particles Apply	Centre for Mathematical Plasma Astrophysics	45	Stefaan Poedts (Stefaan.poedts@kuleuven.be)
New organic synthetic methodology applied to medicinal chemistry Apply	Molecular Design and Synthesis-Laboratory for organic synthesis	45-60	Wim Dehaen (wim.dehaen@kuleuven.be)
Wave dynamics in ion-electron (and pair) plasma's Apply More info	Centre for Mathematical Plasma Astrophysics	45-60	Rony Keppens (Rony.keppens@kuleuven.be)
Provenancing raw materials for ancient glass/ceramics production (petrography/geochemistry/mineralogy: focus on geological analysis techniques and laboratory approaches) Apply	Earth & Environmental Sciences: centre for Archaeological sciences	45-60	Patrick Degryse (Patrick.degryse@kuleuven.be)
Light controlled genome editing with caged Cas9 Apply	Lab of Nanobiology	45-60	Peter Dedecker (Peter.dedecker@kuleuven.be)
Photochromic FRET-based biosensors Apply	Lab of Nanobiology	45-60	Peter Dedecker (Peter.dedecker@kuleuven.be)

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Whole-cell ultrastructural imaging of neuronal plasticity Apply	Lab of Nanobiology	45-60	Peter Dedecker (Peter.dedecker@kuleuven.be)
Saltlake-symbiosis Apply More info	Lab of Molecular Plant Biology	60	Wim Van den Ende (wim.vandenende@kuleuven.be)
Cancer and sugar: possible role of sugar transceptor – sugar kinase interaction Apply More info	Lab of Molecular Cell Biology	60	Johan Thevelein (johan.thevelein@kuleuven.be)
Hard energy X-ray photo-emission for advanced characterization of semiconductors Apply More info	Imec/MCA/MCACSA	60	Wilfried Vandervorst (wilfried.vandervorst@kuleuven.be) Thierry Conard (thierry.conard@imec.be)
Priming tomato against yield losses caused by salt stress Apply More info	Lab of Molecular Plant Biology	60	Wim Van den Ende (wim.vandenende@kuleuven.be)
Experimental evolution of drug tolerance in <i>Candida albicans</i> and <i>Candida auris</i> – <i>Staphylococcus epidermidis</i> polymicrobial biofilms Apply	Lab of Molecular Cell Biology (KULeuven) and VIB center for Microbiology	60	Patrick Van Dijck (patrick.vandijck@kuleuven.be)
Priming-Arabidopsis-stress-FR Apply More info	Lab of Molecular Plant Biology	45-60	Wim Van den Ende (wim.vandenende@kuleuven.be)
Plant-animal-health-enzymes Apply More info	Lab of Molecular Plant Biology	45-60	Wim Van den Ende (wim.vandenende@kuleuven.be)
Priming-Arabidopsis-FEH-BDC Apply More info	Lab of Molecular Plant Biology	45-60	Wim Van den Ende (wim.vandenende@kuleuven.be)
Multiferroic materials – electrical control of magnetism Apply	Nuclear Solid State Physics	45-60	Kristiaan Temst (kristiaan.temst@kuleuven.be) Margriet Van Bael (margriet.vanbael@kuleuven.be) André Vantomme (andre.vantomme@kuleuven.be)

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Development of a novel method for growth of two-dimensional materials based on ion implantation Apply	Nuclear Solid State Physics	45-60	Lino Pereira (lino.pereira@kuleuven.be) Harsh Bana (harshvardhan.bana@kuleuven.be)
Tuning the structural, electronic and magnetic properties of 2D materials using ultra-low energy ion implantation Apply	Nuclear Solid State Physics	45-60	Lino Pereira (lino.pereira@kuleuven.be) Renan Villarreal
Unraveling the physics of atom probe tomography Apply	Nuclear Solid State Physics	45-60	Claudia Fleischmann (Claudia.fleischmann@kuleuven.be) André Vantomme (andre.vantomme@kuleuven.be)
The metal-insulator transition in doped oxides as unraveled by atom probe tomography Apply	Nuclear Solid State Physics	45-60	Claudia Fleischmann (Claudia.fleischmann@kuleuven.be) André Vantomme (andre.vantomme@kuleuven.be)
Characterizing nanostructures using ion beam and novel detector arrays Apply More info	Physics department/Materials and Component Analysis imec	45-60	Wilfried Vandervorst Johan Meersschaut (Johan.Meersschaut@kuleuven.be)
Ultra-high resolution ion beam analysis for the nano-electronics industry Apply More info	Physics department/Materials and Component Analysis imec	60	Wilfried Vandervorst Johan Meersschaut (Johan.Meersschaut@kuleuven.be)
Electrical Characterization of Three-Dimensional Devices using Scanning Probe Microscopy Apply More info	Physics department/Materials and Component Analysis imec	60	Wilfried Vandervorst Kristof Paredis (Kristof.paredis@imec.be)
Polarization induced effects in wide band gap III-nitride/Si heterojunctions: An experimental study at nanoscale Apply More info	Physics department/Materials and Component Analysis imec	60	Wilfried Vandervorst Kristof Paredis (Kristof.paredis@imec.be)
Electrical SPM for the analysis of magnetic memory Apply More info	Physics department/Materials and Component Analysis imec	60	Wilfried Vandervorst Kristof Paredis (Kristof.paredis@imec.be)
Late Cretaceous and Cenozoic geosphere-biosphere interactions Apply More info	Biogeology	30-45-60	Robert Speijer (robert.speijer@kuleuven.be)