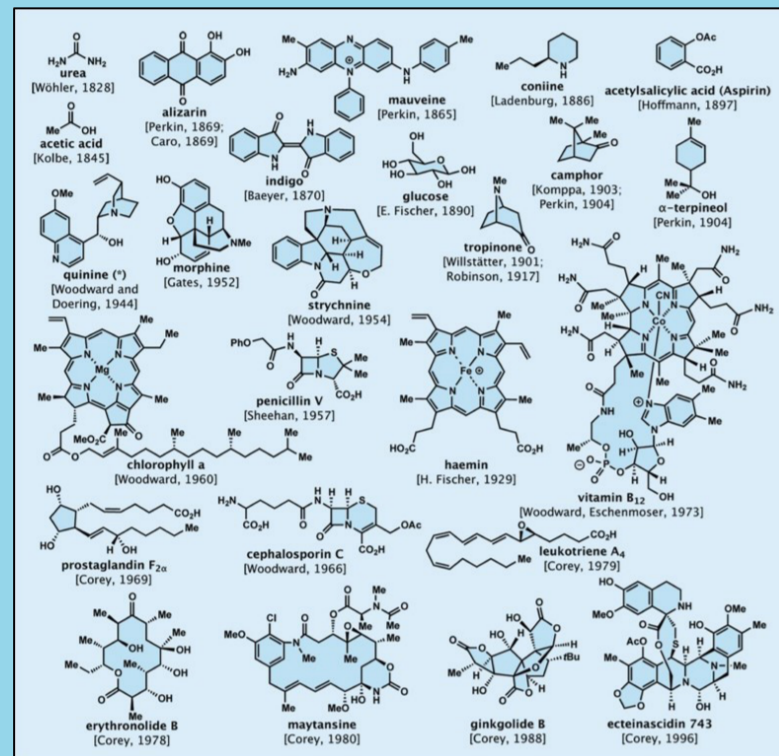
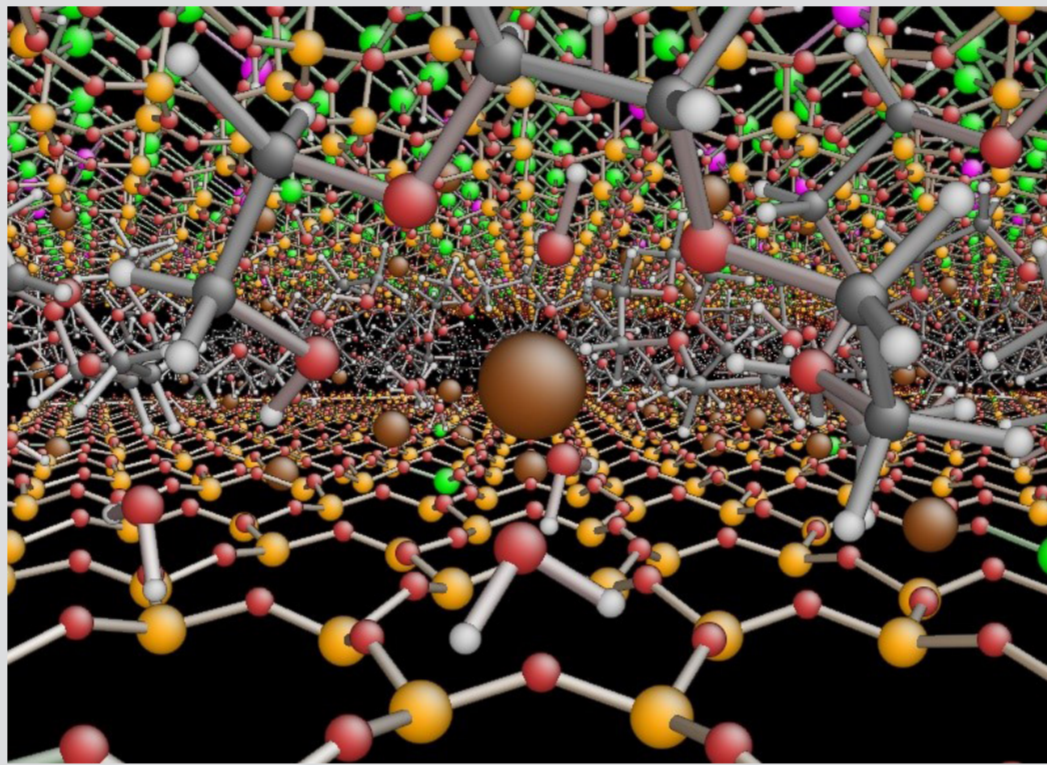
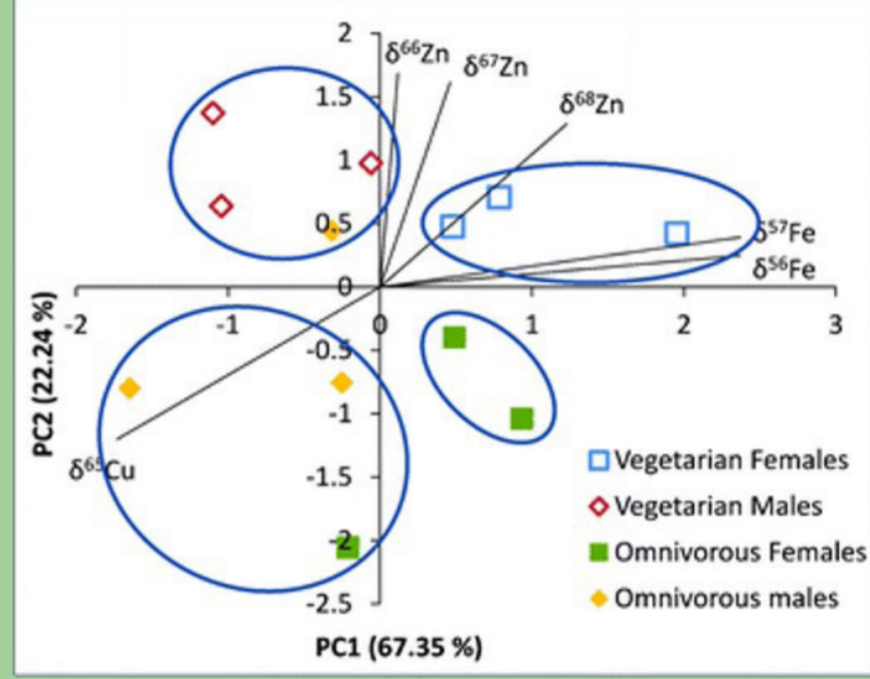



# Chemie: onderwijs

## Master of Science in Chemistry

### Inhoudelijke specialisatie via 3 afstudeertrajecten

#### 1ste SEMESTER

PLICHTVAKKEN (30 stp)		
(BIO)ORGANIC AND POLYMER CHEMISTRY	MATERIALS AND NANO CHEMISTRY	ANALYTICAL AND ENVIRONMENTAL CHEMISTRY
<ul style="list-style-type: none"> <li>Advanced Macromolecular Chemistry</li> <li>Advanced Organic Chemistry</li> <li>Molecular Physical Chemistry</li> <li>Molecular Structure Analysis</li> <li>Integrated problems in Bioorganic and Polymer Chemistry</li> </ul> 	<ul style="list-style-type: none"> <li>Materials Physics</li> <li>Molecular Physical Chemistry</li> <li>Nanomaterials Chemistry</li> <li>Surface Topology, Internal Structure and Composition</li> <li>Integrated Problems in Materials and Nanochemistry</li> </ul> 	<ul style="list-style-type: none"> <li>Analytical Methods for Material Characterization</li> <li>Application in Analytical &amp; Environmental Sci.</li> <li>Molecular Structure Analysis</li> <li>Environmental Analysis</li> <li>Chemometrics</li> </ul>  

#### 2de SEMESTER

INHOUDELIJKE (12 stp) EN VRIJE KEUZEVAKKEN (3 stp)		
<ul style="list-style-type: none"> <li>Assymmetric and Bio-organic Chemistry</li> <li>Assymmetric Synthesis</li> <li>Chemical Biology</li> <li>Foundations of NMR and XRD for molecular Structure Analysis</li> <li>Homogeneous Catalysis</li> <li>Medicinal Chemistry</li> <li>Natural Product Chemistry</li> <li>Organic Separation Techniques and Mass Spectrometry</li> <li>Polymer Materials for Biomedical to Sustainable Aspects</li> <li>Synthetic Methods and Strategies</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Quantum Chemistry</li> <li>Bioinorganic Chemistry</li> <li>Computational Quantum Chemistry</li> <li>Heterogeneous Catalysis</li> <li>Light and Matter</li> <li>Structural analysis by X-rays</li> <li>The f-elements</li> <li>Topics in Nanoscience</li> <li>Functional Ceramics</li> <li>Polymer Materials, from Biomedical to sustainable Aspects</li> </ul>	<ul style="list-style-type: none"> <li>Principles and Applications of Stable Isotope Analysis</li> <li>Archeometry</li> <li>Advanced X-ray spectroscopic Techniques</li> <li>Analytical Raman Spectroscopy</li> <li>Field Sampling and Analysis</li> <li>Cosmochemistry</li> <li>Metal Biogeochemical Cycle</li> <li>Chemical Risk Assessment</li> <li>Foundations of NMR and XRD for Structure Analysis</li> <li>Organic Separation Techniques and Mass Spectrometry</li> <li>Light and Matter</li> <li>Structure Analysis by X-rays</li> </ul>
<b>Masterproef deel I (9 stp)</b> <b>Vorbereiding zelfstandig onderzoek in een onderzoeksgroep naar keuze</b>		

#### 3de SEMESTER

<b>VRIJE KEUZEVAKKEN (9 stp)</b>
<b>Masterproef deel II (21 stp)</b> <b>Uitvoeren zelfstandig onderzoek en het schrijven van een scriptie</b>

#### 4de SEMESTER

<b>Stage (30 stp)</b> <b>Professionalisering door een stage in een bedrijf naar keuze</b>
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Sustainable Chemistry & Science Communication (6 stp)