

<b>Module:</b> Chemical Reaction Kinetics			
<b>University/Department/Institute:</b> Freie Universität Berlin/Department of Biology, Chemistry, Pharmacy/Institute of Chemistry and Biochemistry			
<b>Module supervisors:</b> Lecturers of the module			
<b>Entrance Requirements:</b> successful completion of the module „Basics of Mathematics for Chemistry”			
<b>Goals of Qualification:</b> Students are able to quantitatively capture the temporal progression of chemical reactions with any given order of reaction and complicated reaction paths to construct a concentration-time profile. They know important experimental methods for the determination of the reaction - kinetic parameters. Students are able to interpret changes of the reaction rate caused by changes in temperature and to use these to design reactions. They are able to interpret reaction kinetics on a molecular level. They are able to solve assignments independently and can discuss their results in their study group.			
<b>Contents:</b> phenomenological reaction kinetics, experimental methods for the study of reaction kinetics, theory of reaction rate, homogenous gas reactions, chemic kinetics in solutions			
Teaching methods	Hours of attendance (Hours per week)	Forms of active participation	Workload (hours)
Lecture	2	-	Presence (L) 30 Pre-, post-preparation (L) 30 Presence (T) 30
Tutorial	2	Solving assignments, Contributions to topic related discussions	Pre- , post-preparation (T) 30 Exam preparation and examination 30
<b>Language offer of lecture</b>		German	
<b>Compulsory regular attendance</b>		Attendance is recommended	
<b>Workload (total)</b>		150 hours	5 CP
<b>Length of module</b>		One semester	
<b>Examination</b>		Exam (120 minutes); The exam can also be conducted electronically	
<b>Lecture is offered</b>		Every semester	
<b>Applicability</b>		Bachelor study program Chemistry, Bachelor study program Chemistry for teachers in training, 60-CP-Module offer Chemistry	