

## Molecular assemblies on semiconductors and insulating surfaces joint program project of Jagiellonian University and University of Basel

Program of the annual review meeting, Mulhouse/Basel, June 17-21, 2014

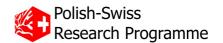
June 17, 2014	Venue	Joint with the 5 <sup>th</sup> European Workshop on	CLOUS, Residence Master Doctorat Université de Haute-Alsace, Mulhouse, France
		Nanomanipulation	
18:00 – 20:00		JU&UB	Welcome and social meeting with participants of the 5 <sup>th</sup> European Workshop on Nanomanipulation
June 18, 2014	Venue	Joint with the 5 <sup>th</sup> European Workshop on Nanomanipulation	Faculté des Sciences et Technique, Université de Haute-Alsace, Mulhouse, France
9:00 - 9:10	Ernst Meyer	UB	General welcome note
11:10 – 11:40	Marek Szymonski	JU	Dangling bond logic gates by STM tip-induced manipulation on surfaces of H-passivated semiconductors
11:40 – 12:00	Jakub Lis	JU	Three ways of switching the dangling bond dimer on Ge(001):H surface
	Venue	Joint with the 5 <sup>th</sup> European Workshop on Nanomanipulation	Hôtel de Ville, Place de la Réunion, Mulhouse
18:00 – 20:00		JU&UB	Reception of the Ville de Mulhouse by Mme Anne-Catherine GOETZ, Assistant of the mayor of Mulhouse for foreign affairs
June 19, 2014	Venue	Joint with the 5 <sup>th</sup> European Workshop on Nanomanipulation	Faculté des Sciences et Technique, Université de Haute-Alsace, Mulhouse, France
9:30 – 9:50	Franciszek Krok	JÚ	Stability of para-sexiphenyl thin films on TiO2 (110) surfaces
Poster Session	Łukasz Zając	JU	Adsorption of carboxyphenyl-substituted porphyrin on titanium dioxide
Poster Session	Rémy Pawlak	UB	Frictional behaviour of a single molecule sliding on a surface
	Venue	Joint with the 5 <sup>th</sup> European Workshop on Nanomanipulation	Cité de l'Automobile, Mulhouse
17:30 – 22:30			Annual Review Reception & Dinner
June 20, 2014		Joint with the 5 <sup>th</sup> European Workshop on Nanomanipulation	Faculté des Sciences et Technique, Université de Haute-Alsace, Mulhouse, France
9:30 – 9:50	Rémy Pawlak	UB	Tip-induced displacements at the surface of metallic glass
11:20 – 11:40	Bartosz Such	JU	On the stability of the chiral clusters of functionalized helicenes on Ag(111) surface

		Only project	Separate Project meeting,
		partners	Faculté des Sciences et Technique,
			Université de Haute-Alsace, Mulhouse, France
14:00 – 14:15	Thilo Glatzel	UB	Welcome & Introduction
14.15 – 14.30	Bartosz Such	JU	On the organization of CTPP(Zn(II)) on TiO2
			surfaces
14:30 – 14:45	Jakub Lis	JU	AFM imaging of the Ge(001):H surface
			experiment and theory
14:45 – 15:00	Łukasz Zając	JU/UB	Dye sensitized solar cells with natural dyes
15:00 – 15:15	Antoine Hinaut	UB	Molecular spray deposition on KBr(001)
15:15 – 15:30	Res Jöhr	UB	Single Cu-porphyrines on the rutile TiO2 surface
15:30 – 16:00			Coffee break
16:00 - 17:00		JU&UB	Discussion on recent experimental results and on
			joint publications
17:00 - 18:00		JU&UB	Annual review meeting summary and discussion
			on the future joint activities
June 21, 2014		Only project	Joint Excursion to the Haut-Kænigsbourg,
		partners	France









## Molecular assemblies on semiconductors and insulating surfaces

joint program project of Jagiellonian University and University of Basel

The main aim of the project is to investigate processes taking place around the molecular assemblies formed on insulating and semiconducting substrate under irradiation by photons. The molecular assemblies grown either by evaporation or by electro-spray deposition will be examined by scanning probe methods, especially non contact atomic force microscopy (NC-AFM) and Kelvin probe force microscopy (KPFM) in order to determine dependence of the electrical properties of the assemblies of their morphology, and exploit that dependence to control the electrical properties of the assemblies. Within the project a number of molecule/substrate systems will be tested in order to find the most suitable ones for examination of the evolution of excitation in the assemblies induced by the incoming light. As the result we hope to gain deeper understanding of charge evolution and transport in the assembly which is crucial in many fields of the nanotechnology and research related to development of light-harvesting media.

## Key personnel involved

Jagiellonian University, Kraków

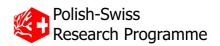
Marek Szymonski Bartosz Such Jakub Lis **University of Basel** 

Ernst Meyer Thilo Glatzel Antoine Hinaut Res Jöhr









## **List of Participants**

Alexander Bubendorf	University of Basel
Sara Freund	University of Basel
Thilo Glatzel	University of Basel
Antoine Hinaut	University of Basel
Res Jöhr	University of Basel
Marcin Kisiel	University of Basel
Franciszek Krok	Jagiellonian University
Jakub Lis	Jagiellonian University
Ernst Meyer	University of Basel
Piotr Olszowski	Jagiellonian University
Remy Pawlak	University of Basel
Bartosz Such	Jagiellonian University
Marek Szymonski	Jagiellonian University
Łukasz Zając	Jagiellonian University



