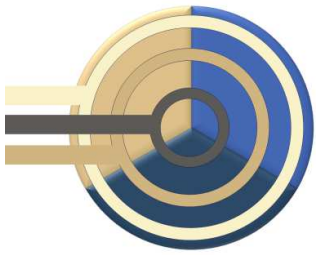
Graduiertenkolleg 1782
„Functionalization of Semiconductors“

Workshop & Seminar

San Sebastian, Spain, july 28th –august 1st



Seminar program (august 1st):

Topic area A: Nanoscale layer structures for the functionalization of Silicon

9.00 – 9.20: E. Sterzer, A. Beyer, K. Werner, R. Straubinger, W. Stolz. C. v. Hänisch, J. Sundermeyer and K. Volz
“Nitrogen incorporation in GaAs using alternative precursors containing As-N and Ga-N bonds”
9.20 – 9.40: P. Springer, S. W. Koch, and M. Kira
"New Approach to Calculate Excitonic Wave Functions in Indirect Semiconductors"
9.40 – 10.00: S. Gies, M. Zimprich, T. Wegele, C. Kruska , A. Beyer, W. Stolz, K. Volz and W. Heimbrodt
"Optical Spectroscopy of Novel III-V-Semiconductor-Heterostructures"
10.00 – 10.20: N. Knaub, A. Beyer, P. Ludewig and K. Volz
"Quantitative STEM HAADF analysis of dilute Bi containing GaAs"

Topic area C: Control of functionalization

10.20 – 10:40: K. Werner, A. Beyer, K. Volz and W. Stolz
"Atomic Processes during the MOCVD of Gallium on Si (001)"
10.40 – 11.00: J. O. Oelerich, A. Stegmüller, K. Werner, A. Beyer, R. Tonner, W. Stolz, K. Volz and S. D. Baranovskii
"Computer Simulation of Growth Kinetics of Compound Semiconductors"

11.10 – 11.40: BREAK

11.40 – 12.00: M. Reutzel, G. Mette, M. Dürr, U. Koert and U. Höfer
"Breaking the O-C-bond: adsorption of diethyl ether on Si(001) "
12.00 – 12.20: S. Laref and R. Tonner
"DFT Calculations of TETRAHYDROFURAN on Si(001)-4x2"
12.20 – 12.40: A. Pick and G. Witte
"Site-selective Perylene-Deposition onto Microcontact-Printed Organothiols on Au-surfaces"

Topic area B: Nanoparticles

12.40 -13.00: J. Eußner and S.Dehnen
"Functional binary and ternary Organotin Chalcogenides"
13.00 – 13.20: N. Rosemann and S. Chatterjee
"Opitcal Properties of Organotin Clusters"
13.30 – 13.40: A. M. Abdelmoenm, B. Pelaz and W. J. Parak
"ZnO Nanoparticles: Synthesis and surface Modification for Biological Applications"
13.40 – 14:00 U. Kaiser, N. Sabir, M. Schneider, D. Jimenez de Aberasturi, W. J. Parak and W. Heimbrodt
"Energy transfer characteristics of Mn doped CdS/ZnS quantum dots"

Poster program (july 30th, 16.00 – 19.00):

Topic area A: Nanoscale layer structures for the functionalization of Silicon

E. Sterzer, A. Beyer, K. Werner, R. Straubinger, W. Stolz. C. v. Hänisch, J. Sundermeyer and K. Volz
"Nitrogen incorporation in GaAs using alternative precursors containing As-N and Ga-N bonds"

T. Wegele, A. Beyer, M. Zimprich, K. Jandieri, W. Stolz and K. Volz
"Investigations Focused on the Local Composition Determination of Dilute Nitride Quaternary Material Systems Grown on Si-substrates"

A. Ott, A. Beyer, A. Ruiz Perez, B. Kunert, W. Stolz and K. Volz
"Investigation of antimonide-based materials grown on exactly oriented (001) silicon substrate"

S. Gies, M. Zimprich, T. Wegele, C. Kruska , A. Beyer, W. Stolz, K. Volz and W. Heimbrodt
"Optical Spectroscopy of Novel III-V-Semiconductor-Heterostructures"

J. Kuhnert, P. Ludewig, K. Volz and S. Chatterjee
"Photo-modulated reflection and temperature-dependent photoluminescence studies of Ga(AsBi) bulk and quantum well structures"

C. Berger, U. Huttner, M. Mootz, M. Kira, S. W. Koch, J.-S. Tempel, M. Aßmann, M. Bayer, A. M. Mintairov, and J. L. Merz
"Microscopic Theory of Semiconductor Lasers"

L. Kraft and H. Jänsch
"An NMR-Approach to semiconductor burried interfaces"

Topic area B: Nanoparticles

N. Sabir, P. del Pino and W. J. Parak
"Mn doped CdS, CdS/ZnS Nanoparticles Synthesis and characterization"

B. Pelaz and W. J. Parak
"Surface modification of nanoparticles"

P. del Pino and W. J. Parak
"Smart Particles for Bio-Apps"

J. P. Eußner and S. Dehnen
"Functional Binary and Ternary Organotin Chalcogenide Clusters"

Topic area C: Control of functionalization

A. Ostapenko and G. Witte
"Preparation and characterization of phosphonic acid based self-assembled monolayers on Zn0 substrates"

M. Lipponer, N. Armbrust, **M. Dürr** and U. Höfer
"Reaction dynamics of exemplary organic molecules on Si(001) - a molecular beam study "

A. Stegmüller and R. Tonner
"MOVPE" Growth Phenomena of III/V Semiconductor studied by DFT

P. Rosenow and R. Tonner
"DFT-Study on the Adsorption of MOVPE-Precursors on III/V Semiconductors on Silicon and on Properties of III/V-Semiconductor Quantum Well Materials"