



Forschungsbericht

Forschungseinheit: **Abteilung für Halbleiterphysik**
Zeitraum: 2014 bis 2016
Forschungsleistungen: alle Forschungsprojekte

Forschungs-Fingerprint

	2016	2015	2014
Forschungsprojekte	12	17	24

Forschungsleistungen

2016

Forschungsprojekte

Geförderte Forschung (EU)

Bonanni A., Rastelli A., Li T., Faina B., Grois A., Nausner L., Adhikari R., Capuzzo G., Tarazaga A., Martin Sanchez J., Schlögelhofer W.:

ALMA - All-Scale Predictive Design of Heat Management Material Structures with Applications in Power Electronics, 2015-2018.

Katsaros G.:

Spajorana - Towards spin qubits and Majorana fermions in Germanium self-assembled hut-wires (ERC Starting Grant), 2014-2018.

Rastelli A., Katsaros G., Sessi V., Vukusic L.:

SiSPIN - Silicon Platform for Quantum Spintronics, 2013-2016.

Rastelli A., Trotta R., Pavlenko E., Wildmann J.:

HANAS - Hybrid Artificial and Natural Atomic Systems, 2013-2016.

Trotta R., Wildmann J., Reindl M., Huang H., Huber D.:

SPQRel - Entanglement distribution via Semiconductor-Piezoelectric Quantum-Dot Relays (ERC Starting Grant), 2016-2021.

Geförderte Forschung (FWF)

Katsaros G.:

Towards hole spin qubits and Majorana fermions in Germanium (START-Programm), 2014-2016.



Katsaros G., Rastelli A., Sessi V.:

Helical states in strained ultrathin Ge nanowires, 2013-2016.

Rauter P.:

Light-hole SiGe quantum cascade lasers in the THz and mid-IR, 2015-2018.

Schäffler F., Grydlik M.:

Einzelmolekül-Plattform für Protein Interaktions Analysen, 2013-2018.

Springholz G., Daruka I., Großauer C.:

Novel SiGe Nanostructures on Vicinal and High-Indexed Silicon Surfaces, 2015-2018.

Stangl J., Keplinger M., Kriegner D.:

Investigation of nanowires by x-ray diffraction methods, 2012-2017.

Geförderte Forschung (andere Geldgeber)

Rastelli A., Nausner L.:

Thermoelectric Properties of Self-Assembled Nanocrystals in Semiconductor Matrix: Experiment and Theory, 2013-2016.

2015

Forschungsprojekte

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Bonanni A., Rastelli A., Li T., Faina B., Grois A., Nausner L., Adhikari R., Capuzzo G., Tarazaga A., Martin Sanchez J., Schlögelhofer W.:

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Geförderte Forschung (FWF)

Brehm M.:

High-efficiency LEDs based on amorphous Ge quantum dots, 2014-2015.

Fromherz T., Grydlik M., Simma M., Brehm M., Hackl F.:

IR Emission and Detection by Group IV Nanostructures (Subprojekt des SFB F-25), 2005-2015.

Groiß H.:

Quantitative TEM of nanostructures for MIR applications, 2014-2015.

Katsaros G.:

Towards hole spin qubits and Majorana fermions in Germanium (START-Programm), 2014-2016.

Katsaros G., Rastelli A., Sessi V.:

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Schäffler F., Grydlik M.:

Einzelmolekül-Plattform für Protein Interaktions Analysen, 2013-2018.



Schäffler F., Pachinger D., Grydlik M., Sanduijav B., Groß H., Brehm M., Langer G., Jannesari R., Glaser M., Schatzl M.:

SiGe Nanostructures (Subprojekt des SFB F-25), 2005-2015.

Springholz G., Abtin L., Lugovyy D., Eibelhuber M., Hassan M., Khair A., Witzan M., Steiner H., Großbauer C.:

Epitaxial Lead Salt Nanostructures (Subprojekt des SFB F-25), 2005-2015.

Springholz G., Daruka I., Großbauer C.:

Novel SiGe Nanostructures on Vicinal and High-Indexed Silicon Surfaces, 2015-2018.

Stangl J., Bauer G., Mandl B., Hrauda N., Keplinger M., Kriegner D.:

Next Generation X-ray Techniques (Subprojekt des SFB F-25), 2005-2015.

Stangl J., Keplinger M., Kriegner D.:

Investigation of nanowires by x-ray diffraction methods, 2012-2017.

Geförderte Forschung (andere Geldgeber)

Rastelli A., Nausner L.:

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Geförderte Forschung (EU)

Katsaros G.:

Spajorana - Towards spin qubits and Majorana fermions in Germanium self-assembled hut-wires (ERC Starting Grant), 2014-2018.

Katsaros G., Sessi V.:

Spiderman - Electronic Transport and Spin dynamics through SiGe self-assembled quantum dots, 2012-2014.

Rastelli A., Katsaros G., Sessi V., Vukusic L.:

SiSPIN - Silicon Platform for Quantum Spintronics, 2013-2016.

Rastelli A., Kirchschrager R., Nausner L., Sessi V., Chen P., Cobet M.:

NEAT - Nanoparticle Embedded in Alloy Thermoelectrics, 2012-2014.

Rastelli A., Trotta R., Pavlenko E., Wildmann J.:

HANAS - Hybrid Artificial and Natural Atomic Systems, 2013-2016.

Geförderte Forschung (FFG)

Fromherz T., Bednorz M., Guider R.:

PLATON - 35N III - IIIV Nanostructures, 2012-2014.

Fromherz T., Brehm M., Lausecker E.:

NILaustria - Nanoimprint Lithography in Austria: enabling emerging high added value applications, 2011-2014.

Fromherz T., Humer M., Guider R.:

PLATON - NAP III - Nanostructures for atomic physics II, 2012-2014.

Fromherz T., Lausecker E.:

NILquantumdot II - High density, large area, ordered nanostructures on templates defined by nano imprint lithography for optoelectronic applications II, 2011-2014.

Hrauda N., Stangl J., Fromherz T., Bonanni A.:

Clear_Sapphire, 2013-2014.

Geförderte Forschung (FWF)

Brehm M.:

High-efficiency LEDs based on amorphous Ge quantum dots, 2014-2015.



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Quantum transport in self-assembled Ge nanowires, 2012-2014.

Katsaros G., Rastelli A., Sessi V.:
Helical states in strained ultrathin Ge nanowires, 2013-2016.

Rauter P.:
A SiGe quantum cascade laser based on light hole transitions, 2013-2014.

Rinnerbauer V.:
High temperature thermal emitter and absorber metamaterials, 2013-2014.

Schäffler F., Grydlik M.:
Einzelmolekül-Plattform für Protein Interaktions Analysen, 2013-2018.

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Experiment and Theory, 2013-2016.
