

Semiconductor Physics Division Fachverband Halbleiterphysik (HL)

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Overview of Invited Talks and Sessions

(lecture rooms FOE Anorg., POT 006, POT 051, POT 151, and POT 251; posters P1, P3, and P4)

Intersectional Symposium “Artificial Optical Materials” (SYOM)

Organization: Ralf B. Wehrspohn (Fraunhofer Institute for Mechanics of Materials Halle), Kurt Busch (Karlsruhe Institute of Technology), Jörg Schilling (Martin-Luther-Universität Halle-Wittenberg)

SYOM 1.1	Mon	14:30–15:00	HSZ 01	Photonic Metamaterials and Transformation Optics: Recent Progress — ●MARTIN WEGENER
SYOM 1.2	Mon	15:00–15:30	HSZ 01	Keeping a tight focus on matter — ●PHILIP ST. J. RUSSELL
SYOM 1.3	Mon	15:30–16:00	HSZ 01	The Physics of Photonic Crystals LEDs — ●CLAUDE WEISBUCH, ELISON MATIOLI
SYOM 1.4	Mon	16:15–16:45	HSZ 01	Using nanophotonic structures to overcome conventional limits in solar energy conversion — ●SHANHUI FAN
SYOM 1.5	Mon	16:45–17:15	HSZ 01	Plasmonic nanocavities: New design concepts and determination of the complete mode spectrum using electron-beam spectroscopies — ●STEFAN A. MAIER

SKM-Symposium “Semiconductor Nanophotonics: Quantum Optics and Devices” (SYNP)

Organization: Jürgen Christen (Otto-von-Guericke-Universität Magdeburg), Oliver Benson (Humboldt-Universität zu Berlin)

SKM-SYNP 1.1	Wed	14:30–15:00	TRE Ma	Quantum Optics on Photonic Chips — ●DIRK ENGLUND, BRENDAN SHIELDS, HONGKUN PARK, MIKHAIL LUKIN, KELLEY RIVOIRE, JELENA VUCKOVIC, FARIBA HATAMI
SKM-SYNP 1.2	Wed	15:00–15:30	TRE Ma	Two-photon Interference from Separate Quantum Dots — EDWARD FLAGG, ANDREAS MULLER, SERGEY POLYAKOV, ALEXANDER LING, ALAN MIGDALL, ●GLENN S. SOLOMON
SKM-SYNP 1.3	Wed	15:30–16:00	TRE Ma	Coherent optoelectronic control of a single exciton qubit — ●ARTUR ZRENNER, STEFFEN MICHAELIS DE VASCONCELLOS, SIMON GORDON, DIRK MANTEI, WADIM QUIRING, MOHANNAD AL-HMOUD, TORSTEN MEIER, MAX BICHLER, ANDREAS D. WIECK, DIRK REUTER
SKM-SYNP 1.4	Wed	16:15–16:45	TRE Ma	Generation of non-classical states of light with site- and potential-controlled pyramidal quantum dots — ●ELI KAPON
SKM-SYNP 1.5	Wed	16:45–17:15	TRE Ma	Semiconductor Devices for Quantum Photonics — ●ANDREW SHIELDS, ANTHONY BENNETT, MARK STEVENSON, CAMERON SALTER, RAJ PATEL, IAN FARRER, CHRISTINE NICOLL, DAVID RITCHIE

Focused Session HL 32 & HL 42 “Inorganic/Organic Semiconductor Hybrid Structures”

Organization: Fritz Henneberger (Humboldt-Universität zu Berlin), Norbert Koch (Humboldt-Universität zu Berlin)

HL 32.1	Tue	10:15–10:45	POT 151	Self-assembled monolayers on zinc oxide — ●CRAIG L. PERKINS
HL 32.2	Tue	10:45–11:15	POT 151	Inorganic/organic semiconductor heteroepitaxy - towards new hybrid systems for optoelectronics and photonics — ●SYLKE BLUMSTENGEL
HL 32.3	Tue	11:30–12:00	POT 151	Electrostatic Field Driven Alignment of Organic Oligomers on ZnO Surfaces — ●FABIO DELLA SALA, SYLKE BLUMSTENGEL, FRITZ HENNEBERGER
HL 32.4	Tue	12:00–12:30	POT 151	The incorporation of metal nanostructures at organic/inorganic semiconductor interfaces — ●DIETRICH RT ZAHN, MICHAEL LUDEMANN, OVIDIU GORDAN, PHILIPP SCHÄFER, GEORGETA SALVAN
HL 42.1	Tue	14:15–14:45	POT 151	Interfacial charge-carrier energetics probed by electromodulated absorption spectroscopy: implication for organic-inorganic hybrid photovoltaic devices — ●PETER HO
HL 42.2	Tue	14:45–15:15	POT 151	Organic layers on Si, SiC, and diamond substrates: structural and electronic properties — ●MARTIN STUTZMANN, IAN D. SHARP, JOSE ANTONIO GARRIDO, MARTIN S. BRANDT

Focused Session HL 80 “Novel Green Laser Diodes”

Organization: Andreas Hangleiter (Technische Universität Braunschweig), Tim Wernicke (Technische Universität Berlin)

HL 80.1	Thu	14:30–15:00	POT 51	GaN-based green laser diodes grown on c-plane GaN substrate — ●SHINICHI NAGAHAMA
HL 80.2	Thu	15:00–15:30	POT 51	Room-temperature CW operation of BeZnCdSe green laser diode — ●SHIGEHISA TANAKA, JUN-ICHI KASAI, SUMIKO FUJISAKI, RYOUICHI AKIMOTO, TAKESHI KIKAWA, SHINJI TSUJI, HARUHIKO KUWATSUKA, TOSHIFUMI HASAMA, HIROSHI ISHIKAWA
HL 80.3	Thu	15:30–16:00	POT 51	Growth and properties of semi-polar GaN on patterned silicon substrate — ●NOBUHIKO SAWAKI
HL 80.4	Thu	16:15–16:45	POT 51	Advantages of Using Semipolar Orientation for Making Green InGaN QW Laser Diodes. — ●DMITRY SIZOV, RAJARAM BHAT, KECHANG SONG, CHUNG-EN ZAH
HL 80.5	Thu	16:45–17:15	POT 51	Optical gain of green (Al,In)GaN laser diodes — ●ULRICH SCHWARZ

Further Invited Talks of the division HL

HL 1.1	Mon	10:15–10:45	FOE Anorg	Self-organized quantum dots as single and entangled photon emitters — ●ERIK STOCK, WALDEMAR UNRAU, ANATOL LOCHMANN, ANDREI SCHLIWA, MURAT ÖZTÜRK, ASKHAT BAKAROV, ALEKSANDR TOROPOV, ILIA DEREZOV, VLADIMIR HAISLER, DIETER BIMBERG
HL 13.1	Mon	12:45–13:15	FOE Anorg	Semiconductor quantized current and voltage standard — ●BERND KAESTNER
HL 14.1	Mon	13:00–13:30	POT 06	Why does a thin Layer of CdS on top of CdTe, and other thin-film solar cells improve their efficiency dramatically — ●KARL W. BOER
HL 27.1	Mon	17:00–17:30	POT 51	Intraexciton terahertz nonlinear optics in quantum wells — ●MARTIN WAGNER, HARALD SCHNEIDER, DOMINIK STEHR, STEPHAN WINNERL, AARON M. ANDREWS, STEPHAN SCHATNER, GOTTFRIED STRASSER, MANFRED HELM
HL 56.1	Wed	14:30–15:00	POT 51	Cross-sectional Scanning Tunneling Microscopy on Semiconductor Nanostructures — ●HOLGER EISELE
HL 58.1	Wed	14:30–15:00	POT 251	Transport spectroscopy on non-equilibrium spin and charge states in self-organized quantum dots — ●MARTIN GELLER

Sessions

HL 1.1–1.1	Mon	10:15–11:00	FOE Anorg	Invited Talk: Erik Stock
HL 2.1–2.6	Mon	10:15–11:45	POT 51	Electronic Structure Theory
HL 3.1–3.6	Mon	10:15–11:45	POT 151	III-V-Compounds: GaAs and related Materials
HL 4.1–4.12	Mon	10:15–13:30	POT 251	Carbon: Diamond, Nanotubes, and Graphene
HL 5.1–5.8	Mon	10:15–12:30	POT 06	Innovative Systems and Devices
HL 6.1–6.5	Mon	10:30–13:00	TRE Ma	SKM Symposium: Elementary Processes in Organic Photovoltaics (SYOP)
HL 7.1–7.6	Mon	11:00–12:30	FOE Anorg	Single Photon Sources and Qbits
HL 8.1–8.4	Mon	11:00–13:00	GER 37	Joint Focussed Session: Thin Film Chalcogenide Photovoltaics I
HL 9.1–9.4	Mon	11:15–13:00	WIL A317	Joint Focussed Session: Transparent Conductive Oxides I
HL 10.1–10.6	Mon	11:15–13:00	TRE Phy	Joint Focussed Session: Theory and Computation of Electronic Structure: New Frontiers I
HL 11.1–11.5	Mon	12:00–13:15	POT 51	Transport: mainly Theory
HL 12.1–12.6	Mon	12:00–13:30	POT 151	Quantum Dots and Wires: Arsenides
HL 13.1–13.1	Mon	12:45–13:15	FOE Anorg	Invited Talk: Bernd Kästner
HL 14.1–14.1	Mon	13:00–13:30	POT 06	Invited Talk: Karl W. Böer
HL 15.1–15.12	Mon	14:00–17:30	ZEU 222	Joint Session: Organic Semiconductors I: Solar Cells A
HL 16.1–16.10	Mon	14:30–17:15	FOE Anorg	Microcavities
HL 17.1–17.8	Mon	14:30–16:45	POT 51	Nitrides: Growth and Characterization
HL 18.1–18.4	Mon	14:30–15:30	POT 151	Quantum Hall Effect
HL 19.1–19.13	Mon	14:30–18:00	POT 251	Silicon and Germanium
HL 20.1–20.5	Mon	14:30–15:45	POT 06	Innovative Materials
HL 21.1–21.5	Mon	14:30–17:15	HSZ 01	Symposium: Artificial Optical Materials (SYOM)
HL 22.1–22.5	Mon	14:30–17:00	TRE Ma	SKM Symposium: Spin Caloric Transport (SYST)
HL 23.1–23.3	Mon	14:45–15:45	GER 37	Joint Focussed Session: Thin Film Chalcogenide Photovoltaics II
HL 24.1–24.6	Mon	16:00–17:30	GER 37	Joint Focussed Session: Thin Film Chalcogenide Photovoltaics III
HL 25.1–25.9	Mon	15:45–18:15	POT 151	Transport
HL 26.1–26.7	Mon	16:00–17:45	POT 06	Interfaces and Surfaces
HL 27.1–27.1	Mon	17:00–17:30	POT 51	Invited Talk: Martin Wagner
HL 28.1–28.5	Mon	17:30–18:45	POT 51	THz Physics
HL 29.1–29.4	Mon	17:45–18:45	FOE Anorg	Organic Photovoltaics II: mainly Phtalocyanine
HL 30.1–30.6	Tue	10:15–11:45	FOE Anorg	Nano Wires: Growth and Characterization
HL 31.1–31.12	Tue	10:15–13:30	POT 51	III-V-Compounds: Nitrides
HL 32.1–32.6	Tue	10:15–13:00	POT 151	Focussed Session: Inorganic/Organic Semiconductor Hybrid Structures I
HL 33.1–33.12	Tue	10:15–13:30	POT 251	Spin-dependent Transport I
HL 34.1–34.9	Tue	10:30–13:00	HSZ 02	Joint Session: Solid State Photon Sources
HL 35.1–35.9	Tue	10:30–13:00	ZEU 222	Joint Session: Organic Semiconductors II: Solar Cells B
HL 36.1–36.5	Tue	11:15–13:15	WIL B122	Joint Focussed Session: Transparent Conductive Oxides II
HL 37.1–37.6	Tue	11:15–13:00	TRE Phy	Joint Focussed Session: Theory and Computation of Electronic Structure: New Frontiers II
HL 38.1–38.5	Tue	12:00–13:15	FOE Anorg	Polaritons and Polariton Lasing
HL 39.1–39.7	Tue	13:30–15:15	FOE Anorg	Photovoltaics: Chalcopyrites I
HL 40.1–40.5	Tue	14:00–15:15	ZEU 222	Joint Session: Organic Semiconductors III: Aggregation and Nanostructures
HL 41.1–41.4	Tue	14:15–15:15	POT 51	Nitrides: InGaN
HL 42.1–42.2	Tue	14:15–15:15	POT 151	Focussed Session: Inorganic/Organic Semiconductor Hybrid Structures II
HL 43.1–43.3	Tue	14:30–15:15	POT 251	Spin-dependent Transport II
HL 44.1–44.100	Tue	18:00–21:00	P3	Poster Session I
HL 45.1–45.20	Tue	18:00–21:00	P1	Joint Poster Session
HL 46.1–46.12	Wed	10:15–13:30	FOE Anorg	Organic Photovoltaics I
HL 47.1–47.5	Wed	10:15–11:30	POT 51	GaN on Si
HL 48.1–48.12	Wed	10:15–13:30	POT 151	ZnO: Devices
HL 49.1–49.8	Wed	10:15–12:15	POT 251	Photonic Crystals and Metamaterials
HL 50.1–50.5	Wed	10:30–13:00	TRE Ma	SKM Symposium: Topological Insulators (SYTI)

HL 51.1–51.7	Wed	11:15–13:00	TRE Phy	Joint Focussed Session: Theory and Computation of Electronic Structure: New Frontiers III
HL 52.1–52.6	Wed	11:45–13:15	POT 51	Nonpolar and Semipolar Nitrides
HL 53.1–53.4	Wed	12:30–13:30	POT 251	Optical Properties I
HL 54.1–54.10	Wed	14:00–17:00	ZEU 222	Joint Session: Organic Semiconductors IV: Excitations and Charges
HL 55.1–55.12	Wed	14:30–17:45	FOE Anorg	Photovoltaics: mainly Technology and Photon Management
HL 56.1–56.1	Wed	14:30–15:00	POT 51	Invited Talk: Holger Eisele
HL 57.1–57.4	Wed	14:30–15:30	POT 151	ZnO: Optical Properties
HL 58.1–58.1	Wed	14:30–15:00	POT 251	Invited Talk: Martin Geller
HL 59.1–59.5	Wed	14:30–17:15	TRE Ma	SKM Symposium: Semiconductor Nanophotonics - Quantum Optics and Devices (SYNP)
HL 60.1–60.5	Wed	15:00–16:15	POT 251	Quantum Dots: Transport
HL 61.1–61.7	Wed	15:00–17:00	TRE Phy	Joint Focussed Session: Theory and Computation of Electronic Structure: New Frontiers IV
HL 62.1–62.6	Wed	15:15–16:45	POT 51	Nitrides: Advanced Characterization Techniques
HL 63.1–63.10	Wed	15:45–18:30	POT 151	II-VI-Compounds
HL 64.1–64.11	Wed	16:30–19:30	POT 251	Quantum Wires: Transport
HL 65.1–65.4	Wed	17:00–18:00	POT 51	Nitrides: AlGaN
HL 66.1–66.8	Wed	17:15–19:15	GER 38	Joint Session: Plasmonics and Nanophotonics
HL 67.1–67.6	Wed	18:00–19:30	FOE Anorg	OLEDs and OFETs
HL 68.1–68.12	Thu	10:15–13:30	FOE Anorg	Photovoltaics: Chalcopyrites II
HL 69.1–69.5	Thu	10:15–11:30	POT 51	Nitrides: LEDs
HL 70.1–70.13	Thu	10:15–13:45	POT 151	Quantum Dots and Wires: Theory
HL 71.1–71.11	Thu	10:15–13:15	POT 251	Quantum Dots: Optical Properties
HL 72.1–72.6	Thu	10:15–11:45	GER 38	Joint Session: Organic Electronics and Photovoltaics I
HL 73.1–73.4	Thu	12:00–13:00	GER 38	Joint Session: Organic Electronics and Photovoltaics II
HL 74.1–74.9	Thu	10:30–13:00	HSZ 02	Joint Session: Quantum Optics of Solid State Photon Sources
HL 75.1–75.6	Thu	11:15–13:00	TRE Phy	Joint Focussed Session: Theory and Computation of Electronic Structure: New Frontiers V
HL 76.1–76.6	Thu	11:45–13:15	POT 51	Nitride-based Green Lasers
HL 77.1–77.8	Thu	14:00–16:00	GER 38	Joint Session: Organic Electronics and Photovoltaics III
HL 78.1–78.6	Thu	16:15–17:45	GER 38	Joint Session: Organic Electronics and Photovoltaics IV
HL 79.1–79.10	Thu	14:30–17:15	FOE Anorg	Photovoltaics: Mainly Silicon
HL 80.1–80.5	Thu	14:30–17:15	POT 51	Focussed Session: Novel Green Laser Diodes
HL 81.1–81.10	Thu	14:30–17:15	POT 151	Graphene: Transport
HL 82.1–82.10	Thu	14:30–17:15	POT 251	Ultrafast Phenomena
HL 83.1–83.6	Thu	15:00–16:30	TRE Phy	Joint Focussed Session: Theory and Computation of Electronic Structure: New Frontiers VI
HL 84.1–84.7	Thu	17:15–19:15	TRE Phy	Joint Focussed Session: Theory and Computation of Electronic Structure: New Frontiers VII
HL 85.1–85.130	Thu	18:00–21:00	P4	Poster Session II
HL 86.1–86.11	Fri	10:15–13:15	FOE Anorg	Quantum Dots: Growth and Characterization
HL 87.1–87.12	Fri	10:15–13:30	POT 51	ZnO: Growth and Defects
HL 88.1–88.12	Fri	10:15–13:30	POT 151	Lasers
HL 89.1–89.12	Fri	10:15–13:30	POT 251	Optical Properties II
HL 90.1–90.5	Fri	10:30–13:00	BAR 205	Intersectional Joint Session: Nano Plasmonic
HL 91.1–91.5	Fri	11:15–12:45	TRE Phy	Joint Focussed Session: Theory and Computation of Electronic Structure: New Frontiers VIII

Annual General Meeting of the Semiconductor Physics Division

Thursday 17:15–18:00 POT 051

- Bericht
- Wahl
- Verschiedenes