

Dielectric Solids Division Fachverband Dielektrische Festkörper (DF)

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Overview of Invited Talks and Sessions

(lecture rooms H 1, H 3, H 4, H 8, H9, H 11, H 38, and H 48; poster A and D1)

Invited Talks

DF 4.1	Mon	10:15–10:45	H3	Antiferromagnetic interlayer coupling in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ / SrRuO_3 superlattices — •IONELA VREJOIU
DF 6.1	Tue	10:00–10:40	H11	Gate Oxides beyond SiO_2 and the High K Materials Revolution — •DARRELL SCHLOM
DF 6.4	Tue	11:35–12:15	H11	Aspect Ratio Trapping: A Heterointegration Solution for Ge and III-V CMOS — •JAMES FIORENZA
DF 9.1	Wed	10:00–10:35	H11	Structural dynamics in photoexcited molecules — •MAJED CHERGUI
DF 9.5	Wed	11:40–12:15	H11	Ultrafast photochromism of fulgides — •MARKUS BRAUN, SIMONE DRAXLER, THOMAS BRUST, STEPHAN MALKMUS
DF 10.1	Wed	14:00–14:40	H11	Molecular self-assembly on calcite — •ANGELIKA KÜHNLE, PHILIPP RAHE, JENS SCHÜTTE, SEBASTIAN RODE
DF 14.1	Wed	14:00–14:30	H48	New Approach to the Old Problem: Cooperativity in Dynamics of Glass Forming Systems — •ALEXEI SOKOLOV
DF 14.6	Wed	15:45–16:15	H48	Slow domains percolation in polymer melts and blends close to the glass transition: a unifying concept regarding bulk dynamics, dynamics in the vicinity of interfaces, and the physical properties of nanocomposites — •DIDIER R. LONG
DF 15.1	Thu	10:00–10:40	H11	Photons meet sound waves — •JAN K KRÜGER, ROLAND SANCTUARY
DF 16.1	Thu	14:00–14:40	H11	Successive phase transitions in $(\text{Gua})_4\text{SO}_4\text{Cl}_2$ crystal - dielectric, pyroelectric, dilatometric and optical studies — •ZBIGNIEW CZAPLA, ARTUR ROKOSA, SLAWOMIR DACKO, BOGUSLAW KOSTUREK

Tutorial: Functional (oxide) single crystals and epitaxial films - from growth to function

DF 1.1	Sun	16:00–16:45	H4	Influence of ferroelectric phase transitions on the melt growth of bulk oxide crystals — •MANFRED MÜHLBERG, MANFRED BURIANEK
DF 1.2	Sun	16:45–17:30	H4	Electromechanical properties of crystals — •EIKEN HAUSSÜHL
DF 1.3	Sun	17:30–18:15	H4	Epitaxial ferroelectric oxide thin films, nanostructures, and superlattices — •DIETRICH HESSE, IONELA VREJOIU, MARIN ALEXE

Focus Session: High-k and high mobility materials for CMOS

Organisation: Thomas Schröder und Jürgen Schubert

DF 6.1	Tue	10:00–10:40	H11	Gate Oxides beyond SiO_2 and the High K Materials Revolution — •DARRELL SCHLOM
DF 6.2	Tue	10:45–11:10	H11	Advanced CMOS transistor technologies using HKMG and strained Silicon for high performance applications — •MANFRED HORSTMANN
DF 6.3	Tue	11:10–11:35	H11	Amorphous ternary high-k oxides on Si and higher mobility substrates — •MARCELO LOPES, EYLEM DURGUN-OZBEN, ALEXANDER NICHAU, ROMAN LUPTAK, MARTIN ROECKERATH, JUERGEN SCHUBERT, SIEGFRIED MANTL

DF 6.4	Tue	11:35–12:15	H11	Aspect Ratio Trapping: A Heterointegration Solution for Ge and III-V CMOS — ●JAMES FIORENZA
DF 6.5	Tue	12:20–12:45	H11	Wafer Bonding Techniques for Advanced CMOS — ●MANFRED REICHE
DF 6.6	Tue	12:45–13:10	H11	Si wafer engineering: single crystalline oxides as buffers for the integration of alternative semiconductors — ●ALESSANDRO GIUSSANI, PETER ZAUMSEIL, OLAF SEIFARTH, MARKUS ANDREAS SCHUBERT, PETER STORCK, THOMAS SCHROEDER

Focus Session: Structural dynamics in photoexcited molecules

Organisation: Dominik Schaniel

DF 9.1	Wed	10:00–10:35	H11	Structural dynamics in photoexcited molecules — ●MAJED CHERGUI
DF 9.2	Wed	10:40–11:00	H11	Ultrafast reversible photogeneration of nitrosyl linkage isomers in $\text{Na}_2[\text{Fe}(\text{CN})_5\text{NO}]2\text{H}_2\text{O}$ — ●MATTHIEU NICOUL, THEO WOIKE, DOMINIK SCHANIEL
DF 9.3	Wed	11:00–11:20	H11	Photoinduced isomerization of molecular switches at metal surfaces — ●PETRA TEGEDER
DF 9.4	Wed	11:20–11:40	H11	Light induced conformational changes of retinal proteins — ●HEINZ-JÜRGEN STEINHOFF
DF 9.5	Wed	11:40–12:15	H11	Ultrafast photochromism of fulgides — ●MARKUS BRAUN, SIMONE DRAXLER, THOMAS BRUST, STEPHAN MALKMUS
DF 9.6	Wed	12:20–12:40	H11	<i>Ab-initio</i> and semi-empirical molecular dynamics studies of photoisomerisable molecules — ●JAN BOYKE SCHÖNBORN, OLE CARSTENSEN, BERND HARTKE
DF 9.7	Wed	12:40–13:00	H11	Influence of ligand substitution and dielectric environment on structural dynamics in photoswitchable molecular compounds — ●VOLKER DIECKMANN, SEBASTIAN EICKE, KRISTIN SPRINGFELD, MIRCO IMLAU

Symposium Density Functional Theory and Beyond for Real Materials (SYDF)

See SYDF for the full program of the symposium

SYDF 1.1	Thu	14:45–15:15	H1	Downfolded Self-Energy of Many-Electron Systems and the Hubbard U — ●FERDI ARYASETIAWAN
SYDF 1.2	Thu	15:15–15:45	H1	LDA+Gutzwiller method for correlated electron systems — ●ZHONG FANG
SYDF 1.3	Thu	15:45–16:15	H1	Localized and itinerant states in d/f-electron systems unified by $GW@LDA+U$ — ●HONG JIANG
SYDF 1.4	Thu	16:30–17:00	H1	Giant polaronic effects in solids and nanostructures — ●ANDREA MARINI
SYDF 1.5	Thu	17:00–17:30	H1	Excitation energies with time-dependent density <i>matrix</i> functional theory — ●EVERT JAN BAERENDS, KLAAS J. H. GIESBERTZ, OLEG GRITSENKO, KATARZYNA PERNAL
SYDF 1.6	Thu	17:30–18:00	H1	Calculations of multipoles in magnetic metals and insulators — ●LARS NORDSTRÖM

Symposium Energy landscapes: Statistical physics of (spin-)glasses, biomolecules, clusters and optimization problems (SYEL)

See SYEL for the full program of the symposium

SYEL 1.1	Mon	10:00–10:30	H1	Energy Landscapes of clusters, glasses, and biomolecules — ●DAVID WALES
SYEL 1.2	Mon	10:30–11:00	H1	Order parameters and energy landscapes for protein folding and misfolding — ●STEVEN PLOTKIN
SYEL 1.3	Mon	11:00–11:30	H1	Nuclear Spins Reveal the Microscopic Nature of Tunneling Systems in Glasses — ●CHRISTIAN ENSS
SYEL 1.4	Mon	11:30–12:00	H1	Energy landscapes and phase transitions — ●LAPO CASETTI
SYEL 1.5	Mon	12:00–12:30	H1	Phase transitions in spin glasses — ●PETER YOUNG
SYEL 1.6	Mon	12:30–13:00	H1	Statistical physics of inverse problems — ●RICCARDO ZECCHINA

Sessions

DF 1.1–1.3	Sun	16:00–18:15	H4	Functional (oxide) single crystals and epitaxial films - from growth to function
DF 2.1–2.6	Mon	11:00–13:00	H11	Optical and nonlinear optical properties, photonic I
DF 3.1–3.10	Mon	15:00–17:30	Poster D1	Poster I: Nano- and microstructured dielectrics, surfaces and interfaces, dielectric composites
DF 4.1–4.9	Mon	10:15–12:45	H3	Multiferroics I (Joint Session of MA, DF, KR, DS)
DF 5.1–5.14	Mon	14:00–17:45	H3	Multiferroics II (Joint Session of MA, DF, KR, DS)
DF 6.1–6.6	Tue	10:00–13:10	H11	Focus Session: High-k and high mobility materials for CMOS
DF 7.1–7.6	Tue	14:00–16:00	H11	Dielectric and ferroelectric thin films
DF 8.1–8.6	Tue	14:00–16:00	H9	Electrical and mechanical properties
DF 9.1–9.7	Wed	10:00–13:00	H11	Focus Session: Structural dynamics in photoexcited molecules
DF 10.1–10.9	Wed	14:00–17:30	H11	Dielectric surfaces and interfaces
DF 11.1–11.6	Wed	9:30–11:00	H8	High-k and Low-k Dielectrics I (Joint Session DS/DF)
DF 12.1–12.6	Wed	11:15–12:45	H8	High-k and Low-k Dielectrics II (Joint Session DS/DF)
DF 13.1–13.12	Wed	15:00–17:30	Poster A	Poster II: Electrical, mechanical and optical properties, non-linear dielectrics
DF 14.1–14.11	Wed	14:00–17:30	H48	Glasses I (Joint Session of DY, DF, CPP)
DF 15.1–15.7	Thu	10:00–12:50	H11	Optical and nonlinear optical properties, photonics II
DF 16.1–16.3	Thu	14:00–15:25	H11	Phase Transitions
DF 17.1–17.6	Thu	15:30–17:30	H11	Nano- and microstructured dielectrics
DF 18.1–18.11	Thu	9:45–12:30	H38	Glasses II (Joint Session of DY, DF, CPP)

Annual General Meeting of the Dielectric Solids Division

Mittwoch 17:45–19:00 H11

- Bericht des Fachverbandleiters
- Tagungsnachlese
- Wahl des Fachverbandleiters
- Eingeladene Vorträge 2010
- Tutorial, Focus Sessions, Plenary Talks und Symposia 2011
- Verschiedenes