

## Dielectric Solids Division Fachverband Dielektrische Festkörper (DF)

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### Overview of Invited Talks and Sessions

(lecture rooms ER 164, EB 107 and EB 407; Poster G)

#### Invited Talks

DF 2.1	Mon	10:00–10:40	EB 107	<b>Recent Progress in Polymeric LED</b> — ●KLAUS MEERHOLZ
DF 4.1	Mon	14:00–14:40	EB 107	<b>High-k gate dielectrics on silicon and on high-mobility semiconductors: Atomic-scale phenomena underlying transistor performance</b> — ●MARTIN M. FRANK
DF 5.1	Mon	14:30–15:10	EB 407	<b>Behaviour of Ferroelectrics Influenced by Nanoscale Morphology</b> — ●JOHN MARTIN GREGG, ALINA SCHILLING, LIWU CHANG, MARK MCMILLEN, MOHAMED SAAD, ROBERT BOWMAN, GUSTAU CATALAN, JAMES SCOTT, FINLAY MORRISON
DF 6.1	Tue	9:30–10:00	EB 407	<b>Glass freezing in confined geometries studied by DMA</b> — ●WILFRIED SCHRANZ, JOHANNES KOPPENSTEINER, MADALINA-ROXANA PUICA
DF 7.1	Tue	10:00–10:40	EB 107	<b>Modelling of Point Defects in Ferroelectric Materials</b> — ●KARSTEN ALBE, PAUL ERHART
DF 7.2	Tue	10:40–11:20	EB 107	<b>Polarons in lithium niobate</b> — ●ORTWIN SCHIRMER
DF 12.1	Thu	10:00–10:40	EB 107	<b>Piezoelectric ceramic materials - a success story</b> — ●DIETER SPORN, ANDREAS SCHÖNECKER, BERNHARD BRUNNER, HORST BEIGE

#### Tutorial "Basics of polar oxides"

DF 1.1	Sun	14:00–15:30	ER 164	<b>Physik der Ferroelektrika - Grundlagen</b> — ●CHRISTOPH BUCHAL
DF 1.2	Sun	15:30–17:00	ER 164	<b>Ferroelektrische Schichten und Heterostrukturen</b> — ●HERMANN KOHLST-EDT

#### Internal symposium "High-k dielectrics for highly scaled Silicon-based Micro- and Nanoelectronics"

Organisation: Th. Schroeder, IHP-Microelectronics, Frankfurt/Oder

DF 4.1	Mon	14:00–14:40	EB 107	<b>High-k gate dielectrics on silicon and on high-mobility semiconductors: Atomic-scale phenomena underlying transistor performance</b> — ●MARTIN M. FRANK
DF 4.2	Mon	14:40–15:05	EB 107	<b>Molecular Beam Epitaxy of crystalline oxides on Si for C-MOS and for the monolithic integration of semiconductors on Silicon</b> — ●SAINT-GIRONS GUILLAUME, MERCKLING CLÉMENT, EL-KAZZI MARIO, BECERRA LOIC, REGRENY PHILIPPE, PATRIARCHE GILLES, LARGEAU LUDOVIC, FAVRE-NICOLIN VINCENT, HOLLINGER GUY
DF 4.3	Mon	15:05–15:30	EB 107	<b>Damascene metal gate technology: A solution to high-k gate stack challenges?</b> — ●UDO SCHWALKE
DF 4.4	Mon	15:30–16:10	EB 107	<b>Do new materials solve the upcoming challenges of future DRAM memory cells?</b> — ●UWE SCHRÖDER
DF 4.5	Mon	16:10–16:35	EB 107	<b>AVD and ALD developments for next generation MIM capacitors and memory applications</b> — PETER K. BAUMANN, CHRISTOPH LOHE, ●MICHAEL HEUKEN

DF 4.6 Mon 16:35–17:00 EB 107 **MIM Capacitors for Wireless Communication Technologies** —  
•CHRISTIAN WENGER

### Internal symposium "Point defect spectroscopy and engineering"

Organisation: R. Eichel, Technische Universität Darmstadt

DF 7.1 Tue 10:00–10:40 EB 107 **Modelling of Point Defects in Ferroelectric Materials** — •KARSTEN ALBE, PAUL ERHART

DF 7.2 Tue 10:40–11:20 EB 107 **Polarons in lithium niobate** — •ORTWIN SCHIRMER

DF 7.3 Tue 11:20–11:40 EB 107 **Local structure and symmetry of paramagnetic ions in microscopic and nanoscopic ferroelectric materials** — •EMRE ERDEM, KAMIL KIRAZ, MEHMET SOMER, RÜDIGER -A. EICHEL

DF 7.4 Tue 11:40–12:00 EB 107 **The effect of (Gd<sup>3+</sup>,Cu<sup>2+</sup>) and (Gd<sup>3+</sup>,Fe<sup>3+</sup>) Co-Doping on the Defect Chemistry of PbTiO<sub>3</sub>** — •MICHAEL DRAHUS, RÜDIGER EICHEL, EMRE ERDEM, HANS KUNGL, MICHAEL HOFFMAN

DF 7.5 Tue 12:00–12:20 EB 107 **Influence of extrinsic defects on the recombination behavior of light-induced hole and electron polarons in KNbO<sub>3</sub>** — •BETTINA SCHOKE, CHRISTOPH MERSCHJANN, STEFAN TORBRÜGGE, MIRCO IMLAU

DF 7.6 Tue 12:20–12:40 EB 107 **Solid-state NMR on defects in lead titanates** — •MARKO BERTMER, RÜDIGER EICHEL, HANS KUNGL

DF 7.7 Tue 12:40–13:00 EB 107 **Gitterplatzbestimmung und Ausheilverhalten von Hf implantiertem CaF<sub>2</sub>** — •THOMAS GERUSCHKE, REINER VIANDEN

### Invited talks of the joint symposium SYNf

See SYNf for the full program of the Symposium.

### Invited talks of the joint symposium SYEC

See SYEC for the full program of the Symposium.

### Sessions

DF 1.1–1.2	Sun	14:00–17:00	ER 164	<b>Tutorial: Basics of Polar Oxides</b>
DF 2.1–2.8	Mon	10:00–13:00	EB 107	<b>Electric, electromechanical and optical properties I</b>
DF 3.1–3.5	Mon	10:40–12:20	EB 407	<b>Phase Transitions</b>
DF 4.1–4.6	Mon	14:00–17:00	EB 107	<b>High-k dielectrics for highly scaled Silicon-based Micro- and Nanoelectronics</b>
DF 5.1–5.8	Mon	14:30–17:30	EB 407	<b>Scanning and diffraction methods</b>
DF 6.1–6.10	Tue	9:30–12:15	EB 407	<b>Glasses I (joint session DF/DY)</b>
DF 7.1–7.7	Tue	10:00–13:00	EB 107	<b>Point defect spectroscopy and engineering</b>
DF 8.1–8.7	Tue	14:30–16:15	EB 407	<b>Glasses II (joint session DF/DY)</b>
DF 9.1–9.19	Tue	15:00–18:00	Poster G	<b>Poster</b>
DF 10.1–10.7	Wed	14:30–16:15	EB 407	<b>Glasses III (joint session DF/DY)</b>
DF 11.1–11.9	Wed	14:00–17:00	EB 107	<b>Dielectric and ferroelectric thin films and nanostructures I</b>
DF 12.1–12.8	Thu	10:00–13:00	EB 107	<b>Dielectric and ferroelectric thin films and nanostructures II</b>
DF 13.1–13.9	Thu	14:00–17:00	EB 107	<b>Dielectric and ferroelectric thin films and nanostructures III</b>
DF 14.1–14.10	Thu	14:00–17:20	EB 407	<b>Electric, electromechanical and optical properties II</b>

### Annual General Meeting of the Dielectric Solids Division

Mittwoch 17:30–18:30 Raum EB 107

- Bericht des Fachverbandsleiters
- Tagungsnachlese
- Eingeladene Vorträge für 2009
- Fachinterne und fachübergreifende Symposia 2009
- Verschiedenes