

## Dielectric Solids Division Fachverband Dielektrische Festkörper (DF)

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### Overview of Invited Talks and Sessions

(Lecture rooms: EB 107, EB 407 and EB 133C; Posters: C)

#### Tutorial on Ferroics

DF 1.1	Sun	16:00–16:50	H 0107	<b>Fundamentals of ferroelectric materials</b> — ●SUSAN TROLIER-MCKINSTRY
DF 1.2	Sun	16:50–17:40	H 0107	<b>Domain walls in multiferroics as functional oxide interfaces</b> — ●MANFRED FIEBIG
DF 1.3	Sun	17:40–18:30	H 0107	<b>Ferroelastic templates for multiferroic domain boundaries</b> — ●EKHARD SALJE

#### Symposium SYDW “Ferroic Domain Walls”

See SYDW for the full program of the symposium.

SYDW 1.1	Mon	9:30–10:00	H 0105	<b>Domain walls: from conductive paths to technology roadmaps</b> — ●GUSTAU CATALAN
SYDW 1.2	Mon	10:00–10:30	H 0105	<b>Domain walls and oxygen vacancies - towards reversible control of domain wall conductance</b> — ●PATRYCJA PARUCH
SYDW 1.3	Mon	10:30–11:00	H 0105	<b>Novel mechanisms of domain-wall formation</b> — ●ANDRES CANO
SYDW 1.4	Mon	11:30–12:00	H 0105	<b>Novel materials at domain walls</b> — ●BEATRIZ NOHEDA
SYDW 1.5	Mon	12:00–12:30	H 0105	<b>Controlling and mapping domain wall behaviour in ferroelectrics</b> — ●JOHN MARTIN GREGG, JONATHAN WHYTE, RAYMOND MCQUAID, MICHAEL CAMPBELL, AMIT KUMAR, ROGER WHATMORE

#### Invited Talks: Focus Sessions on Ferroic Domain Walls I - III

DF 4.1	Mon	15:00–15:30	EB 107	<b>Domain walls and phase boundaries - new nanoscale functional elements in complex oxides</b> — ●JAN SEIDEL
DF 4.4	Mon	16:10–16:40	EB 107	<b>Field-induced hysteresis of chiral vortices in ferroelectric SrTiO<sub>3</sub> twin walls.</b> — ●EKHARD SALJE
DF 4.5	Mon	16:50–17:20	EB 107	<b>Spintronic functionality of BiFeO<sub>3</sub> domain walls</b> — JI HYE LEE, IGNASI FINA, DIETRICH HESSE, ●MARIN ALEXE
DF 4.8	Mon	18:00–18:30	EB 107	<b>Functional ferroic domain walls - AC &amp; DC transport</b> — ●LUKAS M. ENG
DF 7.1	Tue	9:30–10:00	EB 107	<b>Polarization charge as a reconfigurable dopant in wide-bandgap ferroelectrics</b> — ●TOMAS SLUKA
DF 7.4	Tue	10:40–11:10	EB 107	<b>Influence of defects on domain wall mobility in ferroelectrics</b> — ●SUSAN TROLIER-MCKINSTRY, DANIEL MARINCEL, STEPHEN JESSE, SERGEI KALININ, HUIARUO ZHANG, IAN REANEY
DF 7.5	Tue	11:20–11:50	EB 107	<b>The electronic structure of longitudinal domain walls: a DFT perspective</b> — ●GUSTAV BIHLMAYER, KOUROSH RAHMANIZADEH, DANIEL WORTMANN, STEFAN BLÜGEL
DF 7.8	Tue	12:30–13:00	EB 107	<b>Electronic reconstruction and transport at ferroelectric domain walls</b> — ●DENNIS MEIER
DF 14.1	Wed	15:00–15:30	EB 107	<b>Low energy consumption spintronics using multiferroic heterostructures</b> — ●MORGAN TRASSIN

**Invited Talks: Focus Sessions on GHz Dielectrics: Materials for Mobile Communication I and II**

DF 16.1	Thu	9:30–10:00	EB 407	<b>New application scenarios for dielectric materials in mobile communication systems of the 5<sup>th</sup> generation</b> — ●ROLAND GABRIEL
DF 16.5	Thu	11:00–11:30	EB 407	<b>Dielectric-loaded antennas for circular polarisation: their contribution to the information capacity of wireless terminals</b> — ●OLIVER LEISTEN
DF 16.8	Thu	12:30–13:00	EB 407	<b>Tunable GHz-components with ferroelectric and liquid crystal technologies for mobile terrestrial and satellite-based systems</b> — ●ROLF JAKOBY
DF 17.1	Thu	15:00–15:30	EB 407	<b>Temperature stable low loss ceramics for resonators and filters</b> — ●IAN REANEY
DF 17.5	Thu	16:30–17:00	EB 407	<b>Low loss flexible and stretchable dielectrics for microwave applications</b> — ●MAILADIL SEBASTIAN

**Invited Talks**

DF 12.1	Wed	9:30–10:00	EB 407	<b>Holographic microstructuring of liquid-crystalline elastomers</b> — ●IRENA DREVENSEK-OLENIK, MARTIN ČOPIČ, MARTIN FALLY, VALENTINA DOMENICI, ANTONI SÁNCHEZ-FERRER
DF 13.1	Wed	11:20–11:50	EB 407	<b>Twisting the anionic-electronic transport kinetics to trigger memristance for resistive switching non-volatile memories: new materials, structuring and methods</b> — ●JENNIFER RUPP, FELIX MESSERSCHMITT, SEBASTIAN SCHWEIGER, RAFAEL SCHMITT, MARKUS KUBICEK
DF 13.4	Wed	12:30–13:00	EB 407	<b>Investigation of dielectrics under electron irradiation</b> — ●HANS-JOACHIM FITTING
DF 14.1	Wed	15:00–15:30	EB 107	<b>Low energy consumption spintronics using multiferroic heterostructures</b> — ●MORGAN TRASSIN

**Sessions**

DF 1.1–1.3	Sun	16:00–18:30	H 0107	<b>Tutorial on Ferroics (DF with MA/TT)</b>
DF 2.1–2.5	Mon	9:30–12:30	H 0105	<b>Symposium on Ferroic Domain Walls</b>
DF 3.1–3.7	Mon	11:15–13:00	ER 164	<b>Photovoltaics: Kesterites and Less Widely used Materials (HL with DF)</b>
DF 4.1–4.8	Mon	15:00–18:30	EB 107	<b>Focused Session on Ferroic Domain Walls I (DF with MA)</b>
DF 5.1–5.30	Mon	19:00–21:00	Poster C	<b>Poster Session on Ferroic Domain Walls - Multiferroics (DF with KR/MA/TT)</b>
DF 6.1–6.8	Mon	19:00–21:00	Poster C	<b>Poster Session DF</b>
DF 7.1–7.8	Tue	9:30–13:00	EB 107	<b>Focused Session on Ferroic Domain Walls II (DF with MA)</b>
DF 8.1–8.4	Tue	11:15–12:15	H 0111	<b>High-k and Low-k Dielectrics (DS with DF)</b>
DF 9.1–9.6	Tue	14:00–16:00	EB 107	<b>Focused Session on Ferroic Domain Walls III (DF with MA)</b>
DF 10.1–10.13	Wed	9:30–13:00	EB 107	<b>Multiferroics I (DF with DS/KR/MA/TT)</b>
DF 11.1–11.10	Wed	9:30–13:00	EB 133C	<b>Small Polarons in LiNbO<sub>3</sub></b>
DF 12.1–12.4	Wed	9:30–11:00	EB 407	<b>Optical and Nonlinear Optical Properties I (DF with CPP)</b>
DF 13.1–13.4	Wed	11:20–13:00	EB 407	<b>Ceramics and Applications (DF with KR)</b>
DF 14.1–14.13	Wed	15:00–18:50	EB 107	<b>Multiferroics II (DF with DS/KR/MA/TT)</b>
DF 15.1–15.8	Wed	15:00–17:40	EB 407	<b>Optical and Nonlinear Optical Properties II (DF with KR)</b>
DF 16.1–16.8	Thu	9:30–13:00	EB 407	<b>Focused Session on GHz Dielectrics: Materials for Mobile Communication I (DF with HL/MM)</b>
DF 17.1–17.5	Thu	15:00–17:00	EB 407	<b>Focused Session on GHz Dielectrics: Materials for Mobile Communication II (DF with HL/MM)</b>
DF 18.1–18.9	Thu	15:00–17:30	BH-N 128	<b>Glasses and Glass Transition I (DY with DF/ CPP)</b>
DF 19.1–19.7	Fri	9:30–11:15	C 243	<b>Glasses and Glass Transition II (CPP with DF/DY)</b>

**Annual General Meeting of the Dielectric Solids (DF) and the Crystallography (KR) Divisions**

Mittwoch 19:00–20:00 EB 107