

CENTER FOR DIELECTRICS AND PIEZOELECTRICS

Fall 2026 Meeting
Cleveland, OH
November 11-13, 2026

AGENDA

Wednesday, November 11, 2026:

8:00 AM – 5:00 PM

Registration

8:00 – 9:00 AM

Breakfast

9:00 AM – MEETING BEGINS

9:00 – 10:00

MLCC's and MLA Talk

*Clive Randall/Michael
Norrell (Penn State)*

10:00 – 10:15

Break

10:15 – 11:00

DLTS and TSDC Talk

*Thorsten Schmitz-
Kempen (aixACCT)*

11:00 – 12:00

Accelerating Ceramics Synthesis, Processing and
Characterization

*Kyle Weber, Friedrich-
Alexander-Universität
Erlangen-Nürnberg*

12:00 – 1:00

Lunch

1:30 – 4:30 PM

SESSION I

1:00 – 1:30

Welcome and Introductions

*Susan Trolier-
McKinstry/ Greg Parsons*

1:30 – 1:50

I-1 Elucidating Size Effects on the Dielectric Properties of Ultra-
thin BaTiO₃ Membranes (R. Xu/Trolier-McKinstry)
CDP_2026_2

*Ruijuan Xu/Yiming Ding
(NC State)*

1:50 – 1:55

Q&A for I-1

1:55 – 2:15

I-2 Nanoscale Investigation of Fatigue (Balke/Jones)
CDP_2026_6

*Huimin Qiao
(NC State)*

2:15 – 2:20

Q&A for I-2

2:20 – 2:40

I-3 High Temperature High Permittivity Dielectrics (Randall)
CDP_2026_3

*Maria-Cristina
Navarrete (Penn State)*

2:40 – 2:45

Q&A for I-3

2:45 – 3:15

Break

3:15 – 3:35

I-4 Acoustic Characterization of Damage in Dielectric and
Piezoelectric (Arguelles/Trolier-McKinstry) **CDP_2026_1**

*Roger Ma/Haley Jones
(Penn State)*

3:35 – 3:40

Q&A for I-4

3:40 – 4:00	I-5	Investigation of MLCC Reliability and the $\text{Al}_{1-x}\text{Sc}_x\text{N}$ Device Quality Factor Using Optical Thermography (<i>Choi/Trolier-McKinstry</i>) CDP_2025_4	<i>Kyuhwe Kang (Penn State)</i>
4:00 – 4:05	Q&A for I-5		
4:05 – 6:00	Poster Session/Reception		
6:00 – 8:00	Dinner		

Thursday, November 12, 2026:

8:00 AM-5:00 PM	Registration		
8:00 – 9:00	Breakfast		
8:00 – 9:00	Student/Industry Member Session <i>Sanshiro Aman and Monika Milkovska are working on this</i>		
9:00 – 4:30PM	<u>SESSION II</u>		
9:00 – 9:05		Welcome	<i>Greg Parsons (NCSU)</i>
9:05 – 9:25	II-1	Electromechanical Reliability in PiezoMEMS (Akkopru-Akgun/Trolier-McKinstry) CDP_2025_2	<i>Abhyuday Verma (Penn State)</i>
9:25 – 9:30	Q&A for II-1		
9:30 – 9:50	II-2	Development of Low Dielectric Loss Glass Compositions (Lanagan) CDP_2026_8	<i>Mohamed Eltantawy (Penn State)</i>
9:50 – 9:55	Q&A for II-2		
9:55 – 10:15	II-3	SimuLingua: A Multimodal Scientific Foundation Model for Accelerating Discovery and Design of Materials	<i>Per Kiellgen (U. Sheffield)</i>
10:15 – 10:20	Q&A for II-3		
10:20 – 11:00	Break		
11:00 – 11:20	II-4	Innovative Techniques for Electromagnetic Characterization in the 5G/6G Frequency Range (Lanagan) CDP_2025_3	<i>Arafat Hossain (Penn State)</i>
11:20 – 11:25	Q&A for II-4		
11:25 – 11:45	II-5	Pulse Poling Piezoelectrics (Randall) CDP_2026_4	<i>Michael Mervosh (Penn State)</i>
11:45 – 11:50	Q&A for II-5		

11:50 – 12:10	II-6	X9S/X10T temperature stable NaNbO ₃ based dielectrics for high field/temperature capacitor applications	<i>Ian Reaney (U. Sheffield)</i>
12:10 – 12:15	Q&A for II-6		
12:15 – 1:00	Lunch		
1:00 – 3:30PM	<u>SESSION III</u>		
1:00 - 1:20	III-1	Investigation of Dopants to Enhance Degradation Resistance of Quasi Dielectric Degradation Resistance (Randall/Reaney) CDP_2026_7	<i>Ju Hyeon Lee (Penn State)</i>
1:20 – 1:25	Q&A for III-1		
1:25 – 1:35	III-2	New Wurtzite Piezoelectric Films (Maria) CDP_2026_5	<i>Ting-yu Chen (Penn State)</i>
1:35 – 1:40	Q&A for III-2		
1:40 – 1:50	III-3	Bismuth Zinc Niobate Thin Films	<i>Roger Ma (Penn State)</i>
1:50 – 1:55	Q&A for III-3		
1:55 – 2:15	Break		
2:15 – 2:35	III-4	Synthesis Science: Chemically Homogenous and Metastable Perovskites from Novel Precursors (Jones/Forrester) CDP_2026_9	<i>Jacob Jones (NC State)</i>
2:35 – 2:40	Q&A for III-4		
2:40 – 3:00	III-5	Effective Moisture Protection for Bulk and Thin Film Piezoelectric Actuators	<i>Anthony Diaz-Huemme (Penn State)</i>
3:00 – 3:05	Q&A for III-5		
3:05 – 3:25	III-6	The Unified Thermodynamics Theory of Capacitor Failures	<i>Clive Randall (Penn State)</i>
3:25 – 3:30	Q&A for III-6		
3:30 – 4:30	Tabletop presentation w/discussions		
5:00 – 9:00 PM	Dinner		

Friday, November 13, 2026:

8:00 – 9:00 AM

Breakfast

9:00 – 11:00

Industrial Advisory Board Meeting
(Industry Members and CDP Faculty Only)

11:00 – 12:00

Lunch