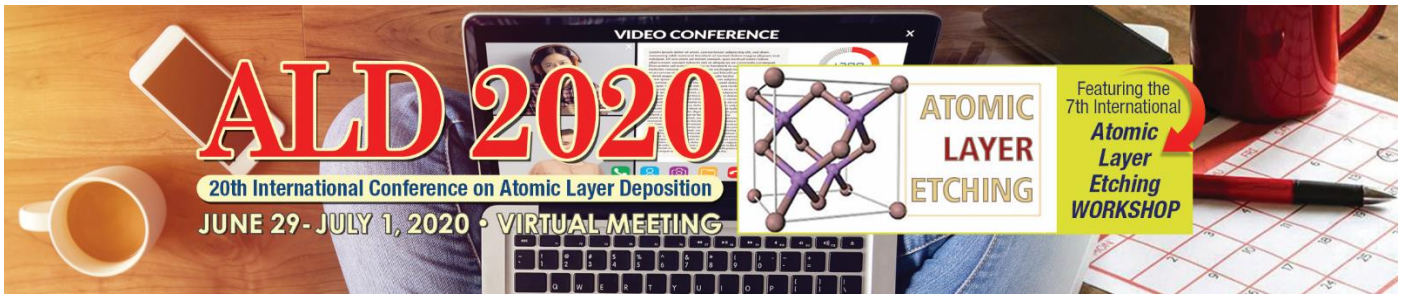

ALD/ALE 2020 Virtual Meeting Overview

The **AVS 20th International Conference on Atomic Layer Deposition (ALD 2020)** featuring the **7th International Atomic Layer Etching Workshop (ALE 2020)** will be adapted into a Virtual Meeting comprised of Live and On Demand (recorded) Sessions. The pre-registration deadline is **June 25, 2020.**

Virtual Meeting Highlights

- Live Daily Session with Plenary and Invited Speakers with Q&A Chat
- Live Announcement of the AVS ALD Innovator & *JVST* Best Paper Award
- Live Two-Day Tutorial with Academic and Industry Experts with Q&A Chat
- Live Student Awards Presentations with Q&A Chat and an Awards Presentation
- Live Virtual Sponsor Rooms
- On Demand Poster Sessions with a Mix of Pre-recorded (Video or Audio) Talks and/or PDFs
- On Demand Sessions Available Through July 2021

Time Zone: All Live Sessions will be held in Eastern Daylight Time (EDT). Please note that Live Sessions will also be recorded and added to the On Demand Sessions. **Time Zone Converter Tool**

Virtual Meeting Quick Links

- **Conference Website**
- **Registration**
- **Presentation Instructions**
- **Viewing Instructions**

The ALD/ALE 2020 Virtual Meeting will kick off on **Monday, June 29, 2020**, with a **FREE** (registration required) live **Plenary & ALD Innovator Award Session.** Following the announcement of the ALD 2020 Awardee there will be a series of plenary and invited talks.

Paid attendees will also be able to participate in the **Tuesday, June 30, 2020 and Wednesday, July 1, 2020, Technical & Poster Sessions**. The live sessions will feature invited and student awards talks. After each day's live sessions, we also invite attendees to view the pre-recorded Technical & Poster Sessions On Demand. Posters will be a mix of pre-recorded (video or audio) talks and/or PDFs.

Attendees may also register for the **Tutorial** that is being held live over a two-day period (Tuesday, June 30-Wednesday, July 1). The Tutorial will feature three speakers each day with a live question and answer period where your chat questions can be answered. The Tutorial Sessions will be recorded and placed On Demand for those who paid for them until **July 31, 2020**

Virtual Meeting Schedule

- **Live Session Schedule**: May be found on the next several pages or in the **ALD/ALE 2020 Online Scheduler** and **Mobile App**. Live Sessions will be presented over the conference dates: June 29-July 1.
- **On Demand Session Schedule:** Will be posted soon in the **ALD/ALE 2020 Online Scheduler** and **Mobile App**. On Demand access will begin on June 29.

All sessions will be accessible via the **ALD/ALE 2020 Online Scheduler** and/or **Mobile App** until July 31, 2020*. Live sessions will be presented over the conference dates (June 29-July 1, 2020). On Demand access will begin on Monday, June 29, 2020.

Access After July 31, 2020:* *AVS Platinum Members will have access to all On Demand Sessions (except the Tutorial) in the AVS Technical Library until their membership expiration date. Non-Members will also receive access to all On Demand Sessions as AVS Silver Members until* ***July 31, 2021.*

Monday Morning, June 29, 2020

	Live Session **Room: Live - Session LI1-MoM** **Plenary & ALD Innovator Award Session: Monday Live** **Moderators:** Christophe Detavernier, Ghent University, Belgium, Erwin Kessels, Eindhoven University of Technology, The Netherlands
10:00 am	**LI1-MoM7** Plenary & ALD Innovator Award Session Welcome Introduction, **C. DETAVERNIER**, J. DENDOOVEN, Ghent University, Belgium, P. POODT, TNO/Holst Center, Netherlands, W.M.M. KESSELS, Eindhoven University of Technology, Netherlands, H.C.M. KNOOPS, Oxford Instruments Plasma Technology, Netherlands, J.-F. DE MARNEFFE, IMEC, Belgium
10:15 am	**LI1-MoM8 Invited** ALD Innovator Awardee Introduction, **MIKKO RITALA**, University of Helsinki, Finland
10:30 am	**LI1-MoM9 Invited** Selective and Atomic Scale Processes to Enable Future Nano-Electronics, **ROBERT CLARK**, TEL Technology Center, America, LLC
10:45 am	Invited talk continued.
11:00 am	**LI1-MoM11 Invited** The First Application of ALD Technology in Display Industry, **HYUN-CHUL CHOI**, LG Display, Republic of Korea
11:15 am	**Break**
11:30 am	**LI1-MoM13 Invited** ALD on Powders for Catalysis, **FRANK ROSOWSKI**, BASF SE, Germany
11:45 am	Invited talk continued.
12:00 pm	**LI1-MoM15 Invited** The Flip Side of the Story: Atomic Layer Etching, **KEREN KANARIK**, Lam Research Corp.
12:15 pm	Invited talk continued.
12:30 pm	**LI1-MoM17** JVST Best Paper Award, Closing Remarks, & Sponsor Thank You, **C. DETAVERNIER**, J. DENDOOVEN, Ghent University, Belgium, P. POODT, TNO/Holst Center, Netherlands, W.M.M. KESSELS, Eindhoven University of Technology, Netherlands, H.C.M. KNOOPS, Oxford Instruments Plasma Technology, Netherlands, J.-F. DE MARNEFFE, IMEC, Belgium

Tuesday Morning, June 30, 2020

Live Session
Room: Live - Session LI2-TuM
Technical & Poster Sessions: Tuesday Live

Moderators:
Harm C.M. Knoops, Oxford Instruments Plasma Technology, The Netherlands,
Paul Poodt, TNO/Holst Center, The Netherlands

10:00 am	**LI2-TuM7** Welcome and Introduction, **CHRISTOPHE DETAVERNIER**, J. DENDOOVEN, Ghent University, Belgium, P. POODT, TNO/Holst Center, Netherlands, W.M.M. KESSELS, Eindhoven University of Technology, Netherlands, H.C.M. KNOOPS, Oxford Instruments Plasma Technology, Netherlands, J.-F. DE MARNEFFE, IMEC, Belgium
10:15 am	**LI2-TuM8 Invited** Thermal Atomic Layer Deposition of Noble Metal Films Using Non-Oxidative Coreactants, **CHARLES H. WINTER**, Wayne State University
10:30 am	Invited talk continued.
10:45 am	**LI2-TuM10** Mixing It Up: Tuning Atomic Ordering in 2-D $Mo_{1-x}W_xS_2$ Alloys by ALD, **JEFF SCHULPEN**, W.M.M. KESSELS, V. VANDALON, A. BOL, Eindhoven University of Technology, Netherlands
11:00 am	**LI2-TuM11** Deposition of Conductive PEDOT Thin Films with EDOT and $ReCl_5$ Precursors, **SABA GHAFOURISALEH**, G. POPOV, M. LESKELA, M. PUTKONEN, M. RITALA, University of Helsinki, Finland
11:15 am	**Break**
11:30 am	**LI2-TuM13** Resistless Lithography Based on Local Surface Modification of Halogenated Amorphous Carbon, **MIKHAIL KRISHTAB**, KU Leuven/Imec, Belgium, T. KULMALA, E. CAGIN, Heidelberg Instruments Nano, Switzerland, S. ARMINI, Imec, Belgium, S. DE GENDT, KU Leuven/Imec, Belgium, R. AMELOOT, KU Leuven, Belgium
11:45 am	**LI2-TuM14** Mimicking Chitin and Chitosan Type of Functionality with Novel Thin Films Grown by Molecular Layer Deposition, **KARINA ASHURBEKOVA**, M. KNEZ, CIC nanoGUNE BRTA, Spain
12:00 pm	**LI2-TuM15** Closing Remarks & Sponsor Thank You, **C. DETAVERNIER**, J. DENDOOVEN, Ghent University, Belgium, P. POODT, TNO/Holst Center, Netherlands, W.M.M. KESSELS, Eindhoven University of Technology, Netherlands, H.C.M. KNOOPS, Oxford Instruments Plasma Technology, Netherlands, J.-F. DE MARNEFFE, IMEC, Belgium

Wednesday Morning, July 1, 2020

Live Session
Room: Live - Session LI3-WeM

Technical & Poster Sessions: Wednesday Live
Moderators:
Christophe Detavernier, Ghent University, Belgium,
Jean-François de Marneffe, IMEC, Belgium

10:00 am	**LI3-WeM7** Welcome & Introduction, **C. DETAVERNIER**, J. DENDOOVEN, Ghent University, Belgium, P. POODT, TNO/Holst Center, Netherlands, W.M.M. KESSELS, Eindhoven University of Technology, Netherlands, H.C.M. KNOOPS, Oxford Instruments Plasma Technology, Netherlands, J.-F. DE MARNEFFE, IMEC, Belgium
10:15 am	**LI3-WeM8 Invited** Surface Reactions Between Metals and Diketone induced by Gas Cluster Ion Bombardments, **N. TOYODA**, K. UEMATSUi, University of Hyogo, Japan
10:30 am	Invited talk continued.
10:45 am	**LI3-WeM10** ALE 2020 Best Student Paper Award Talk: Isotropic Plasma ALE of Al_2O_3 using SF_6 Plasma and TMA, **N. CHITTOCK**, M. VOS, A. MACKUS, Eindhoven University of Technology, Netherlands, H.C.M. KNOOPS, Oxford Instruments Plasma Technology, Netherlands, W.M.M. KESSELS, Eindhoven University of Technology, Netherlands
11:00 am	**Break**
11:15 am	**LI3-WeM12 Invited** Monolayer Lithography: Exploiting Inhibition Contrast from the Extreme Ultraviolet Irradiation of Organic Monolayers for Area Selective Depositions, **R. WOJTECKI**, IBM Research - Almaden
11:30 am	Invited talk continued.
11:45 am	**LI3-WeM14** Super-Conformal ALD of Metallic Mo Films by Simultaneous Deposition and Etch, **J.-S. LEHN**, EMD Performance Materials, C. DEZELAH, ASM, Finland, J. WOODRUFF, R. KANJOLIA, D. MOSER, T. POLSON, EMD Performance Materials
12:00 pm	**Break**
12:15 pm	**LI3-WeM16** Process Optimization in Atomic Layer Deposition Using Machine Learning, A. YANGUAS-GIL, S. LETOURNEAU, A. MANE, N. PAULSON, A. LANCASTER, **JEFFREY W. ELAM**, Argonne National Laboratory
12:30 pm	**LI3-WeM17** ALD/ALE Student Awards, Closing Remarks, & Sponsor Thank You, **C. DETAVERNIER**, J. DENDOOVEN, Ghent University, Belgium, P. POODT, TNO/Holst Center, Netherlands, W.M.M. KESSELS, Eindhoven University of Technology, Netherlands, H.C.M. KNOOPS, Oxford Instruments Plasma Technology, Netherlands, J.-F. DE MARNEFFE, IMEC, Belgium

Tuesday, June 30 – Wednesday, July 1,

	Tutorials **Room: Live - Session TU1-TuA** **Tutorial Session: Tuesday Live** **Moderators:** Christophe Detavernier, Ghent University, Belgium, Harm C.M. Knoops, Oxford Instruments Plasma Technology, The Netherlands	**Tutorials** **Room: Live - Session TU2-WeA** **Tutorial Session: Wednesday Live** **Moderators**: Jean-François de Marneffe, IMEC, Belgium, Erwin Kessels, Eindhoven University of Technology, The Netherlands, Paul Poodt, TNO/Holst Center, The Netherlands
1:00 pm	**TU1-TuA1** Tuesday Tutorial Welcome & Sponsor Thank You, **CHRISTOPHE DETAVERNIER**, Ghent University, Belgium	**TU2-WeA1** Wednesday Tutorial Welcome & Sponsor Thank You, **ERWIN KESSELS**, Eindhoven University of Technology, Netherlands
1:15 pm	**TU1-TuA2 Invited** ALD Precursor Chemistry: Synthetic Routes, Purification and Evaluation of Precursors, **ANJANA DEVI**, Ruhr University Bochum, Germany	**TU2-WeA2 Invited** Growth Mechanisms and Selectivity During Atomic Layer Deposition, **ANNELIES DELABIE**, KU Leuven – University of Leuven/IMEC, Belgium
1:30 pm		
1:45 pm		
2:00 pm	**Break**	**Break**
2:15 pm	**TU1-TuA6 Invited** Atomic Layer Engineering: Hardware Considerations for ALD System Design and Process Development, **NEIL DASGUPTA**, University of Michigan	**TU2-WeA6 Invited** Self-limiting Surface Reactions for Atomic-level Control of Materials Processing, **SIMON D. ELLIOTT**, Schrödinger, Inc.
2:30 pm		
2:45 pm		
3:00 pm	**Break**	**Break**
3:15 pm	**TU1-TuA10 Invited** ALD on High Aspect Ratio and Nanostructured Materials: from Fundamentals to Economics, **ANGEL YANGUAS-GIL**, Argonne National Laboratory	**TU2-WeA10 Invited** Fundamentals of ALE – Optimizing Passivation and Etch*, **MARK KUSHNER**, University of Michigan
3:30 pm		
3:45 pm		
4:00 pm	**TU1-TuA13** Questions & Answers, A. DEVI, Ruhr University Bochum, Germany, N. DASGUPTA, University of Michigan, A. YANGUAS-GIL, Argonne National Laboratory	**TU2-WeA13** Questions & Answers, M. KUSHNER, University of Michigan, ANNELIES DELABIE, KU Leuven – University of Leuven/IMEC, Belgium, S.D. ELLIOTT, Schrödinger, Inc.
4:15 pm		
4:30 pm	**TU1-TuA15** Session Over - View On Demand Presentations	**TU2-WeA15** Session Over - View On Demand Presentations
4:45 pm		