



Europäische Forschungsgesellschaft Dünne Schichten e. V.
European Society of Thin Films

Live Web-Event

SIMULATION FOR ALD

March 25, 2021 | online

Live Presentations, Simulation Talk,
After Work Discussion & Online Market Place

In this workshop the current state of research for modeling approaches on different length scales will be presented. Together we will discuss how to move forward to a multi-scale approach for ALD and related methods like atomic layer etching (ALE) and chemical vapor deposition (CVD).

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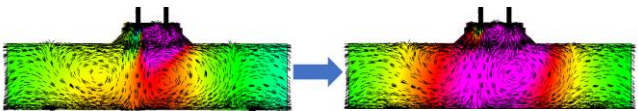
SIMULATION FOR ALD

Atomic layer deposition (ALD) has advanced tremendously in the past two decades into a > USD 3 billion annual market in equipment and chemicals. New integration schemes and patterning technologies are driving the need for atomistic modeling for materials and processes used for manufacturing computer logic and memory chips.

The use of atomistic modeling in the semiconductor industry is at its infancy and some equipment and chemical suppliers have advanced more than others using the most recent atomistic modeling software tools available on the market. Other industries with high ALD engagement and interest in modeling include MEMS & sensors, battery technology, medical, display, lightning, barriers and photovoltaics.

For a long time equipment companies and fabs have been using process chamber fluid flow simulations to optimize processes and ALD reactors for high productivity and product yield. The recent trends in 3D integration with smaller critical dimension and high aspect ratio features demand also so-called feature scale simulations. Very few research groups and leading industry players have been able to join all three scales of the ALD process into one common tool box, i.e., atomic scale, feature scale and reactor scale modeling.

Process optimization using fluid dynamics simulation



Poor process configuration

Improved process configuration

This workshop provides the opportunity to get in contact with industrial and academic partners, to learn more about fundamentals of ALD modeling and to get informed about recent progress in the field. If you are interested to join the online market place, please contact us directly.

Contact: European Society of Thin Films, Dresden, Germany

☎ +49 351 8718370



info@efds.org



www.efds.org

Learn more and register at our website:

<https://www.efds.org/event/websim/>