

Tutorial:

## **Coating of Physically and Chemically Challenging Substrates**

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Atomic layer deposition (ALD) is the method of choice for highly conformal coating of substrates, even in case those have a very complex morphology. However, even though ALD is superior to most competing coating technologies for such complicated structures, physical and chemical challenges occur, which have to be considered upon coating. Improper process setup or choice of precursors will have serious impact on the conformality of the coating and in this way diminish the benefit that is expected from the use of ALD.

The tutorial will address the most important issues the operator has to face while planning to coat challenging substrates. On the one hand, physical challenges will be discussed that may negatively affect the conformality of a coating. On the other hand, some fundamental aspects of the surface chemistry will give insight into the need of understanding and controlling the ALD process.