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Atomic layer deposition — Vocabulary

Dépôt de couches atomiques — Vocabulaire

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Terms related to atomic layer deposition **2**
4.1 General terms 2
4.2 Film growth of atomic layer deposition 3
4.3 Classification of atomic layer deposition 4
Annex A (informative) **Examples of schematic diagrams for a time separated ALD and a spatial ALD** **7**
Bibliography **9**
Index **10**

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Introduction

Atomic layer deposition (ALD) is a thin film deposition technique based on the sequential and self-limiting surface reactions of gas phase precursors on substrate. ALD is able to meet the needs for precise thickness control by changing the deposition cycles. ALD films are uniform and remain extremely conformal to the original substrate since the chemical adsorption and reaction of precursors on substrate is self-limiting during each ALD cycle. ALD can also be extendible to large substrates, flexible substrates and large amounts of micro-nano particles. Therefore, the applications of ALD have covered microelectronics, photovoltaics and displays, as well as many emerging fields, including renewable energy, catalysis and biomedicine.

The aim of this document is to provide the systematic terminologies about ALD technique. This enables global professional communications in both industry and academia.

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