

Comparison of reactive ion etching and atomic layer etching processes with ion beam etching processes, both reactive and chemically assisted.

Andreas Stamm

Oxford Instruments GmbH, Borsigstrasse 15a, 6520, Wiesbaden, Germany

Dry Etching is used in semiconductor manufacturing since almost 50 years now. While it started with basic CCP reactors, these days a number of specialised technologies are used as Reactive Ion Beam Etching (RIBE) for slanted gratings for Augmented Reality applications or Atomic Layer Etching (ALE) for low damage etching of thin films with the etch depth determined by the number of cycles.