

EUV lithography: now and in the future

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Lithography, in the form of carved type printing, can be dated as far back as the 3rd century AD. Starting from the 19th century it played a major role as the basis for dissemination and preservation of knowledge in the form of printed books, maps, newspapers, etc. In the mid 20th century, with the invention of the micro- and nano-electronics, it took on a new meaning and became the basis for the patterning solutions of the modern day semiconductor industry. New challenges for further scaling of semiconductor devices in the 21st century brought Extreme Ultraviolet Lithography (EUVL) under close scrutiny of both high-tech companies and scientific institutes. This growing interest has developed new insights into the science and technology of EUV production and EUV related processes in the areas of plasma physics, optics, surface physics and chemistry as well as many others. In the presentation the continuing voyage to explore this exciting world where these areas come together will be described and the possible technological developments that are still ahead of us will be sketched.

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