Nano Technology and EUV Lithography

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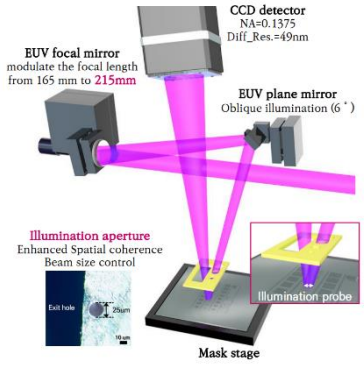
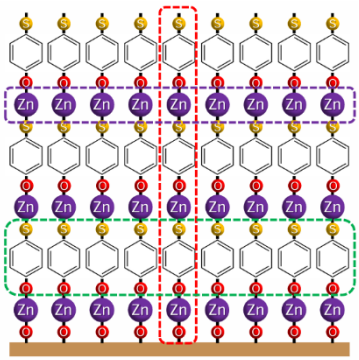
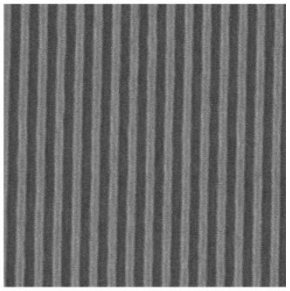
The semiconductor industry is not only at the forefront of nanotechnology applications but also the sector that most critically depends on its advancements. Among the cutting-edge technologies driving semiconductor production, Extreme Ultraviolet (EUV) Lithography emerges as the most advanced. EUV technology exerts a profound influence, both in terms of its groundbreaking technical innovations and its substantial economic implications.

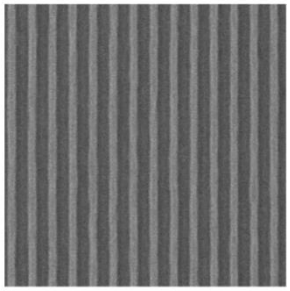
With the use of wavelengths that have never been utilized before, many previously employed techniques have become obsolete. However, with the introduction of the first-generation technological solutions, EUV lithography has become an essential component for the mass production of cutting-edge semiconductor devices. Nonetheless, to achieve further improvements in exposure performance, the development of second-generation technologies has become necessary. This presentation will provide a comprehensive overview of EUV lithography technology and introduce the nanotechnology research related to EUV that we are currently conducting.







CD 14.6 nm
LER 1.38 nm



CD 13.8 nm
LER 1.37 nm