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Compact Accelerator-Based EUV Source Development Using Laser Compton Scattering

Tuesday, 9 May 2023 16:30 (2 hours)

Due to the limitations of Laser Produced Plasma (LPP) Extreme Ultraviolet(EUV) sources, semiconductor industry is seeking the next generation EUV source for sub-nm scale lithography processes. Various accelerator-based light sources have been already proposed as EUV lithography light sources. We investigated the design of a compact high-power EUV light source using laser Compton scattering. The configuration of the linear accelerator and laser system was optimized based on the specifications required for the sub-nm lithography process. Electron beam dynamics and laser electron scattering simulations have also been demonstrated to achieve the required EUV power.

Funding Agency

Footnotes

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Yes

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