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Title
Design for a Stand-alone Extreme Ultraviolet Interference Lithography Tool

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1. Title:	Design for a stand-alone extreme ultraviolet interference lithography tool	
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In order to address the crucial problem of high-resolution low line-edge roughness resist for extreme ultraviolet (EUV) lithography, researches require significant levels of access to high-resolution EUV exposure tools. The prohibitively high cost of such tools, even microfield tools, has greatly limited this availability and arguably hindered progress in the area of EUV resists. To address this problem, we propose the development of a new interference lithography tool capable of working with standalone incoherent EUV sources.

Although EUV interference lithography tools do currently exist, presently used designs require illumination with a high degree of spatial and/or temporal coherence. This, in practice, limits current systems to being implemented at synchrotron facilities greatly limiting the accessibility of such systems. Here we describe an EUV interference lithography system capable of overcoming the coherence limitations, allowing standalone high-power broad sources to be used without the need for excessive spatial or temporal filtering. Such a system provides promising pathway for the commercialization of EUV interference lithography tools.