

Abstract of the Disclosure

**FEATURE OPTIMIZATION USING ENHANCED INTERFERENCE
MAPPING LITHOGRAPHY**

Disclosed concepts include a method of, and program product for, optimizing an intensity profile of a pattern to be formed in a surface of a substrate relative to a given mask using an optical system. Steps include mathematically representing resolvable feature(s) from the given mask, generating a mathematical expression, an eigenfunction, representing certain characteristics of the optical system, modifying the mathematical the eigenfunction by filtering, generating an interference map in accordance with the filtered eigenfunction and the mathematical expression of the given mask, and determining assist features for the given mask based on the interference map. As a result, undesired printing in the surface of the substrate may be minimized.