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(54) **COATING COMPOSITIONS**

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See application file for complete search history.

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(57) **ABSTRACT**

In one aspect, coating compositions are provided that comprise a component a component that comprises one or more silicon, antimony, aluminum, yttrium, cerium, lanthanum, tin, titanium, zirconium, hafnium, indium or zinc compounds. In another aspect, coating compositions are provided that comprise a plurality of discrete particles. Preferred coating compositions of the invention are useful for antireflective purposes, particularly with an underlying photoresist coating layer, as well as for a barrier layer in immersion lithography.

19 Claims, 2 Drawing Sheets