

WATER MARK DEFECT PREVENTION FOR IMMERSION LITHOGRAPHY

ABSTRACT

A photoresist material having a polymer that turns soluble to a base solution in response to reaction with acid. The material includes a photo-acid generator (PAG) that decomposes to form acid in response to radiation energy and a quencher capable of neutralizing acid and having a reduced mobility. The photoresist material can thereby prevent water mark defects from immersion lithography.

Figure 1