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(54) Title: DUAL-LAYER LIGHT-SENSITIVE DEVELOPER-SOLUBLE BOTTOM ANTI-REFLECTIVE COATINGS FOR 193-NM LITHOGRAPHY

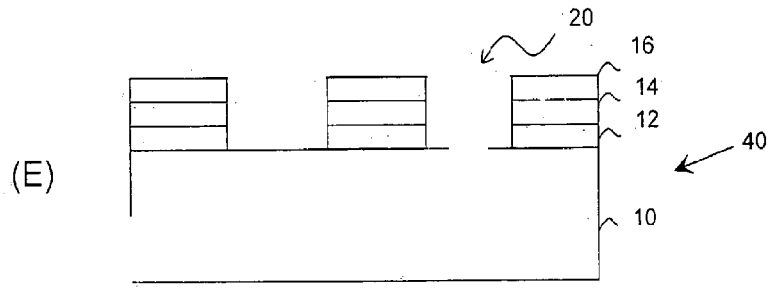


Fig. 1

(57) Abstract: The present invention provides methods of fabricating microelectronics structures and the resulting structures formed thereby using a dual-layer, light-sensitive, wet- developable bottom anti -reflective coating stack to reduce reflectance from the substrate during exposure. The invention provides dyc-fillcd and dye-attached compositions for use in the anti-reflective coatings. The anti-re ilecti ve coatings are thermally crosslinkable and photochcmically decrosslinkable. The bottom anti-reflective coating stack has gradient optical properties and develops at the same time as the photoresist. The method and structure are particularly suited to high-NA lithography processes.

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