

ABSTRACT

TITLE: VAPOR DEPOSITION DEPOSITED PHOTORESIST, AND MANUFACTURING AND LITHOGRAPHY SYSTEMS THEREFOR

A photoresist vapor deposition system includes: a vacuum chamber having a heating element and cooled chuck for holding a substrate, the vacuum chamber having a heated inlet; and a vapor deposition system connected to the heated inlet for volatilizing a precursor into the vacuum chamber for condensing a photoresist over the substrate cooled by the cooled chuck. The deposition system creates a semiconductor wafer system that includes: a semiconductor wafer; and a vapor deposited photoresist over the semiconductor wafer. An extreme ultraviolet lithography system requiring the semiconductor wafer system includes: an extreme ultraviolet light source; a mirror for directing light from the extreme ultraviolet light source; a reticle stage for imaging the light from the extreme ultraviolet light source; and a wafer stage for placing a semiconductor wafer with a vapor deposited photoresist.

Figure 1