

CONFORMAL DEPOSITION OF SILICON CARBIDE FILMS

ABSTRACT

Disclosed are methods and systems for providing silicon carbide films. A layer of silicon carbide can be provided under process conditions that employ one or more silicon-containing precursors that have one or more silicon-hydrogen bonds and/or silicon-silicon bonds. The silicon-containing precursors may also have one or more silicon-oxygen bonds and/or silicon-carbon bonds. One or more radical species in a substantially low energy state can react with the silicon-containing precursors to form the silicon carbide film. The one or more radical species can be formed in a remote plasma source.

FIG. 3