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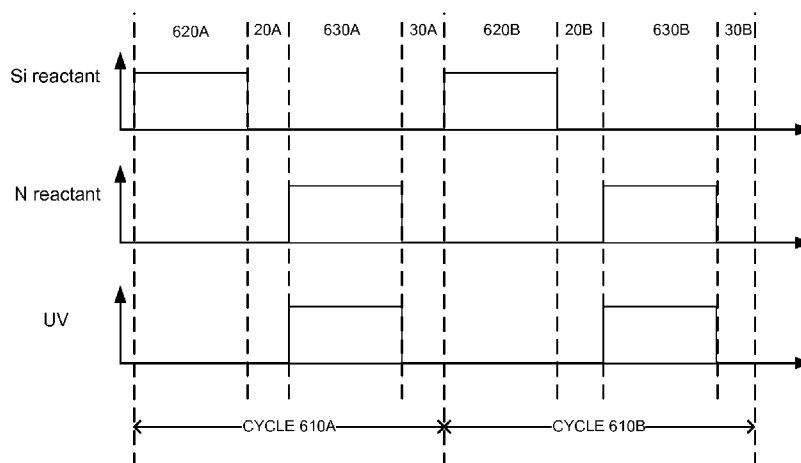
(54) **Title:** METHODS FOR UV-ASSISTED CONFORMAL FILM DEPOSITION

Fig. 6

(57) **Abstract:** Described are methods of making silicon nitride (SiN) materials and other silicon-containing films, including carbon-containing and/or oxygen-containing films such as SiCN (also referred to as SiNC), SiON and SiONC films, on substrates. According to various embodiments, the methods involve electromagnetic radiation-assisted activation of one or more reactants. In certain embodiments, for example, the methods involve ultraviolet (UV) activation of vapor phase amine coreactants. The methods can be used to deposit silicon-containing films, including SiN and SiCN films, at temperatures below about 400°C.



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