

ABSTRACT

The present disclosure provides a method of removing photoresist on a wafer and a semiconductor process device. During the process of removing the photoresist after ion implantation, a spectral intensity of an emitted light generated by a particular element in a chamber corresponding to different sampling moments is obtained; based on spectral intensities corresponding to two adjacent sampling moments, variation characteristic of spectral intensity at each sampling moment is determined; when the variation characteristic corresponding to a current sampling moment satisfies a preset condition, it is determined that the hardened layer removal process is near an end point and the wafer is controlled to descend from its current position toward a heating base according to a preset relationship to remove a hardened layer of the photoresist. By obtaining the spectral intensity of the emitted light produced by a particular element, and judging whether the hardened layer removal process is near the end point based on whether the variation characteristic of the spectral intensity satisfies the preset condition, the wafer is controlled to descend and the temperature is increased only when the hardened layer removal process is near its end point to avoid the hardened layer from popping at high temperature.