

ABSTRACT

The present invention proposes a real-time solution temperature control system and method. The system comprises: a solution supply module 100, configured to supply solutions at different temperatures to a solution blending module 200; the solution blending module 200, configured to receive and uniformly blend the solutions at different temperatures supplied from the solution supply module 100; a temperature sensing module 300, configured to measure the temperature of the uniformly blended solution in the solution blending module 200; a control module 400, configured to adjust the flow rates of the solutions at different temperatures delivered by the solution supply module 100 to the solution blending module 200 according to the temperature of the uniformly blended solution measured by the temperature sensing module 300, enabling the temperature of the uniformly blended solution in the solution blending module 200 to reach the target temperature. The purpose of adjusting the temperature of the solution in real time is achieved by adjusting the flow rate of each component of the solution in real time in an in-line solution blending manner, thereby improving temperature control accuracy and process performance, and enhancing process flexibility.