

ABSTRACT

The invention provides a substrate processing device and a substrate processing method for cooling a substrate, which are capable of conveying a substrate in a cleaner condition. A substrate cooling device serving as a substrate processing device of an embodiment of the invention includes: a chamber; a cooling unit which performs cooling; a substrate holder which is provided with a substrate mounting surface for mounting a substrate inside the chamber, and is cooled by the cooling unit; and a shield which is provided with a side surface portion surrounding a lateral side of the substrate mounting surface inside the chamber, and is cooled by the cooling unit. Moreover, a shield heater is provided in the vicinity of a surface on the inside of the shield.