The system for heating a specimen-bearing slide, in some embodiments, includes a convection cooling device coupled to the controller and configured to deliver a convective flow into the opening based on a signal from the controller. In certain embodiments, the convection cooling device includes at least one fan capable of producing the convective flow. In some embodiments, compressed air or motive air can be used.

The support element, in some embodiments, comprises stainless steel. In some embodiments, a portion of the support element between the support surface for carrying the slide and the conductive heater has a thermal conductivity equal to or less than about 20 W/m*K.

In view of the above, in accordance with a first aspect, there is provided a specimen processing system, comprising: a slide ejector assembly including a carrier handler configured to receive and hold a slide carrier holding a plurality of slides; a slide staging device including a standby platform, and a slide alignment device configured to move a slide at the standby platform from a misaligned position to an aligned position; and an actuator assembly including a slide ejector positioned to move relative to the slide carrier to transfer individual slides from the slide carrier to the standby platform.

In accordance with a second aspect, there is provided a method of transporting specimen-bearing microscope slides, comprising: delivering a carrier containing a plurality of specimen-bearing microscope slides to an ejector assembly; moving the carrier towards a slide staging device of the ejector assembly; sequentially moving the specimen-bearing microscope slides from the carrier to the slide staging device; moving the slide staging device from a receive slide configuration to an align slide configuration to move the individual specimen-bearing microscope slides at the slide staging device to an aligned position; and transporting the individual specimen-bearing microscope slides from the slide staging device of the ejector assembly to one or more specimen processing stations.

BRIEF DESCRIPTION OF THE DRAWINGS

Non-limiting and non-exhaustive embodiments are described with reference to the following drawings. The same reference numerals refer to like parts or acts throughout the various views, unless otherwise specified.

Figure 1 is an isometric view of a specimen processing system in accordance with an embodiment of the disclosed technology.

Figure 2 is an exploded isometric view of the specimen processing system of Figure 1. Portions of a protective housing are shown removed.

Figure 3 is a detailed view of a portion of the specimen processing system of Figure 2.

Figure 4 is an isometric view of a slide ejector assembly in accordance with an embodiment of the disclosed technology.

Figure 5 is an isometric view of the slide ejector assembly of Figure 4 with protective plates shown removed.

Figures 6 and 7 are side views of the slide ejector assembly of Figure 4 with a slide carrier shown in different positions.

Figure 8 is an isometric view of a slide staging device of a slide ejector assembly with a slide ready to be removed in accordance with an embodiment of the disclosed technology.