evaporation losses, especially at the elevated temperatures that are often necessary. Large volumes of rinse liquid are used to physically displace the large puddles of reagents, which are covered with oil. This rinsing procedure produces large volumes of waste liquid, which may be hazardous waste.

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[0007a] According to a first aspect of the present disclosure, there is provided an automated specimen processing system, comprising: a slide ejector assembly including a slide staging device having a standby platform configured to receive a slide and a slide alignment device configured to engage the slide at a plurality of contact points for moving the slide from a misaligned position to an aligned position on the standby platform.

[0007b] According to a second aspect of the present disclosure, there is provided an automated specimen processing system, comprising: a slide staging device including a standby platform configured to receive a microscope slide; and an alignment device having a first aligning member and a second aligning member positioned opposite the first aligning member, wherein the alignment device is configured to engage the microscope slide at a plurality of contact points for moving the slide from a misaligned position to an aligned position; and a transfer head configured to transport microscopes slides from the standby platform to a specimen processing station, the transfer head having a head alignment feature receivable by at least one of a corresponding alignment feature of the slide staging device and/or an alignment feature of the specimen processing station.

[0007c] According to a third aspect of the present disclosure, there is provided a method of transporting specimen-bearing microscope slides in an automated processing system, comprising: sequentially moving a plurality of specimen-bearing microscope slides from a carrier to a slide staging device; aligning the individual specimen-bearing microscope slides along a longitudinal axis at the slide staging device to an aligned position by engaging the individual specimen-bearing microscope slides at a plurality of contact points; and transporting the individual specimen-bearing microscope slides from the slide staging device to one or more specimen processing stations while in the aligned position.

[0008] At least some embodiments of the technology are directed to automated specimen processing systems capable of processing specimens carried on slides. At least some

embodiments include an automated specimen processing system comprising a slide ejector assembly. The slide ejector assembly can include a slide staging device configured to receive a slide. The slide ejector assembly can also include a slide alignment device configured to engage the slide at a plurality of contact points to move the slide from a misaligned position to an aligned position. In one embodiment, the slide alignment device can include a first aligning member and a second aligning member positioned opposite the first aligning member. The first and second aligning members can be movable between an open position for receiving a slide and a closed position for aligning and/or holding the slide.

[0009] The first aligning member, in some embodiments, can include a first contact region and a second contact region for engaging a first edge of the slide. The second aligning member, in some embodiments, can include a third contact region for engaging a second edge of the slide opposite the first edge. In various embodiments, the slide alignment device is configured to engage the slide at three points of contact. In one example, a point of contact can be a small discrete area of the slide contacted by one of the first, second, or third contact regions. In one embodiment, the slide can be moved from the misaligned position to the aligned position on a standby platform by pivoting the slide about a point (e.g., a midpoint) between the three points of contact. In another embodiment, moving the slide from the misaligned position to the aligned position includes aligning a slide longitudinal axis with a standby platform longitudinal axis.

[0010] In some embodiments, an over-travel inhibitor and a slide holding region positioned between the over-travel inhibitor and slide ejector. The over-travel inhibitor can be positioned, for example, to inhibit movement of the slide past the slide holding region. In one embodiment, the over-travel inhibitor includes a vacuum port positioned to draw a vacuum between a slide and the standby platform as the slide is moved across at least a portion of the