CLAIMS

~~What is claimed is:~~

1. A benchtop analytical device, comprising:

an enclosure having a lid and a body, the lid being movable, relative to the body, between an opened position and a closed position, wherein, when the lid is in the closed position, the enclosure encloses:

a probe mounted on the body of the enclosure to facilitate performing optical spectroscopy of a sample; ~~and~~

a sample presentation component to receive the sample for the performing of the optical spectroscopy;

an imaging component and an illumination component to illuminate and image the presentation of the sample to the probe and to enable remote viewing of the interior of the enclosure;

a processor; and

a memory storing executable instructions that, when executed by the processor, cause the benchtop analytical device to:

receive an indication that the lid of the enclosure is in the closed position;

determine that a rule is satisfied, wherein the rule relates to an operable configuration of the enclosure based on the indication that the lid of the enclosure is in the closed position; ~~and~~

determine that a group of rules comprising the rule and a second rule is concurrently satisfied, wherein the second rule relates to determining that the imaging component and the illumination component are configured to be switched to a non-illumination mode;

in response to determining that the group of rules is satisfied, cause emission of optical energy to perform the optical spectroscopy of the sample via the probe.

~~2. The benchtop analytical device of claim 1, wherein the executable instructions, when executed by the processor, further cause the benchtop analytical device to determine that a group of rules comprising the rule and a second rule is concurrently satisfied, wherein the optical spectroscopy is performed in response to determining that the group of rules is concurrently satisfied.~~

~~3. The benchtop analytical device of claim 2, wherein the second rule of the group of rules is related to determining that an operator of the benchtop analytical device has logged into a user account.~~

~~4~~2. The benchtop analytical device of claim 1, wherein the sample presentation component comprises a sample plate to receive and support the sample within the enclosure.

~~5~~3. The benchtop analytical device of claim ~~4~~2, wherein:

a plate retaining area is defined in the body of the enclosure;

the probe is mounted within the plate retaining area;

the sample plate is removably disposed in the plate retaining area and has at least one of:

a sloped surface that slopes from a highest point at a periphery of the sample plate to a lowest point at a location adjacent to the probe when the sample plate is disposed on in the plate retaining area; or

a flat surface with a recessed area defined in the flat surface of the sample plate, a portion of the recessed area positioned at a location adjacent to the probe when the sample plate is disposed in the plate retaining area.

~~6~~4. The benchtop analytical device of claim ~~5~~3, wherein:

an aperture is defined in the sample plate at (i) the lowest point of the sloped surface or (ii) the portion of the recessed area; and

the probe is vertically oriented, pointing in an upward direction, and disposed within the aperture to interrogate the sample from underneath the sample when the sample plate is disposed in the plate retaining area and when the sample is supported on a topside of the sample plate over the aperture.

~~7~~5. The benchtop analytical device of claim ~~6~~4, wherein the sample plate has the sloped surface, and a tip of the probe extends above the lowest point of the sloped surface when the sample plate is disposed in the plate retaining area.

~~8~~6. The benchtop analytical device of claim ~~5~~3, wherein the sample plate has the flat surface and ~~the sample is to be placed in~~ the recessed area is configured to receive the sample prior to closing the lid of the enclosure.

~~9~~7. The benchtop analytical device of claim ~~5~~3, wherein the sample plate is a first sample plate that is exchangeable with a second sample plate that is different from the first sample plate.

~~10~~8. The benchtop analytical device of claim ~~5~~3, wherein the plate retaining area has a sloped surface that slopes from a highest point at a periphery of the plate retaining area to a lowest point adjacent to the probe.

~~11. A benchtop analytical device, comprising:~~

~~an enclosure having a lid and a body, the lid being movable, relative to the body, between an opened position and a closed position, wherein, when the lid is in the closed position, the enclosure encloses:~~

~~a probe mounted on the body of the enclosure to channel optical energy as part of performing optical spectroscopy of a sample; and~~

~~a sample presentation component to receive the sample; and~~

~~a compliance component that (i) enables release of the optical energy via the probe in response to determining that the lid of the enclosure is in the closed position and (ii) disables the release of the optical energy via the probe in response to determining that the lid of the enclosure is not in the closed position.~~

~~12~~9. The benchtop analytical device of any of claims 1 to 8~~claim 11~~, further comprising the processor configured to (i) enable ~~wherein the compliance component enables the~~ release of the optical energy via the probe in response to determining that the lid of the enclosure is in the closed position and (ii) to disable the releasee of the optical energy via the probe in response to determining that ~~a group of rules is concurrently satisfied, wherein a first rule of the group of rules is satisfied when~~ the lid of the enclosure is not in the closed position.

~~13. The benchtop analytical device of claim 12, wherein a second rule of the group of rules is satisfied when an operator of the benchtop analytical device has logged into a user account.~~

~~14. The benchtop analytical device of claim 11, wherein the sample presentation component comprises a sample plate to receive and support the sample within the enclosure.~~

~~15~~10. The benchtop analytical device of any of claims 1 to 9~~claim 11~~, wherein, when the lid of the enclosure is in the closed position, the enclosure further encloses an adjustment mechanism that is usable by an operator of the benchtop analytical device, while the lid of the enclosure is in the opened position, to adjust a position of the sample presentation component relative to the probe.

~~16. The benchtop analytical device of claim 11, wherein the enclosure comprises a viewport made of a window material that attenuates transmission of the optical energy while enabling direct visualization of an interior of the enclosure when the lid is in the closed position.~~

~~17~~11. The benchtop analytical device of any of claims 1 to 10~~claim 11~~, wherein the performing of the optical spectroscopy of the sample includes performing Raman spectroscopy of the sample.

~~18. A method comprising:~~

~~enabling, by a compliance component of a benchtop analytical device, release of optical energy via a probe in response to determining that a rule is satisfied, wherein the rule is satisfied based on a lid of an enclosure being in a closed position, the enclosure, when the lid is in the closed position, enclosing a sample presentation component and the probe, the probe performing optical spectroscopy of a sample that is in or on the sample presentation component by directing the optical energy toward the sample; and~~

~~disabling, by the compliance component, the release of the optical energy in response to determining that the rule is not satisfied.~~

~~19. The method of claim 18, wherein the compliance component enables the release of the optical energy in response to determining that a group of rules is concurrently satisfied, the group of rules including the rule and a second rule, the second rule being satisfied based on an operator of the benchtop analytical device having logged into a user account.~~

~~20. The method of claim 18, wherein the release of the optical energy is a sub step of performing Raman spectroscopy of the sample.~~

~~21. A method comprising:~~

~~receiving, via a user interface, a selection of (i) a type of sample among multiple available types of samples or (ii) a concentration of the type of sample;~~

~~performing optical spectroscopy of a sample within an enclosure of a benchtop analytical device by emitting optical energy from a probe within the enclosure toward the sample; and~~

~~outputting, via the user interface, a result verifying (i) that the sample is the type of sample or (ii) the concentration of the sample.~~

~~22. The method of claim 21, further comprising:~~

~~determining, by a compliance component of the benchtop analytical device, that a rule is satisfied, wherein the rule is satisfied based on a lid of the enclosure being in a closed position; and~~

~~enabling, by the compliance component, release of the optical energy via the probe to perform the optical spectroscopy in response to the determining that the rule is satisfied.~~