What is claimed is:

1. A closure for a nucleic material sequencer apparatus, the closure comprising:

a plurality of light sources;

a lightguide to distribute light from the plurality of light sources, the lightguide having a first primary surface opposite a second primary surface, wherein the first primary surface has a first surface treatment, and wherein light emitted from the lightguide indicates a status of the apparatus; and

a frame supporting the plurality of light sources and the lightguide for selective movement of the closure vertically or horizontally relative to the apparatus to selectively provide access to one or more receptacles for a cartridge or other consumable media utilized by the material sequencer apparatus.

2. The closure of claim 1, wherein the plurality of light sources comprise light-emitting diodes (LEDs).

3. The closure of claim 2, wherein at least two of the LEDs are mounted in a first row on a first side of a first circuit board.

4. The closure of claim 3, wherein the LEDs include side-emitting LEDs.

5. The closure of claim 3, wherein the LEDs include top-emitting LEDs.

6. The closure of any of claims 3 to 5, wherein the first circuit board includes a flexible circuit board.

7. The closure of any of claims 3 to 5, wherein the first circuit board includes a rigid circuit board.

8. The closure of any of claims 3 to 7, wherein at least two of the LEDs are mounted to a first side of a second circuit board, further comprising an interconnect electrically coupling the first circuit board and the second circuit board at a second side of the first circuit board and a second side of the second circuit board, wherein the first side of the first circuit board and the first side of the second circuit board are opposite the second side of the first circuit board and the second side of the second circuit board.

9. The closure of any of claims 3 to 7, wherein the LEDs comprise:

a first set of LEDs positioned to emit light to a first side of the lightguide, the first set of LEDs mounted on the first side of the first circuit board, and

a second set of LEDs positioned to emit light to a second side of the lightguide opposite the first side, the second set of LEDs mounted in a second row on a first side of a second circuit board.

10. The closure of claim 9, further comprising a first dowel pin extending from the frame and through the first circuit board and abutting the first side of the lightguide, and a second dowel pin extending from the frame and through the second circuit board and abutting the second side of the lightguide.

11. The closure of any of claims 1 to 10, wherein the first surface treatment comprises the first primary surface being a first abraded surface.

12. The closure of claim 11, wherein the second primary surface has a second surface treatment different from the first surface treatment.

13. The closure of claim 12, wherein the second surface treatment comprises the second primary surface being a glossy surface.

14. The closure of claim 11, wherein the second primary surface has a second surface treatment, wherein the second surface treatment comprises the second primary surface being a second abraded surface.

15. The closure of any of claims 1 to 14, wherein the first surface treatment comprises a light-extracting feature for the first primary surface.

16. The closure of claim 15, wherein the light-extracting feature comprises dots formed at the first primary surface.

17. The closure of claim 16, wherein the dots have different sizes, further comprising a first gradient of dot size extending between an edge of the first primary surface and a center of the first primary surface.

18. The closure of claim 17, further comprising at least one second gradient of dot size oriented in a direction different from a direction of the first gradient of dot size.

19. The closure of any of claims 1 to 18, further comprising a diffuser positioned proximate to the second primary surface of the lightguide, the light from the lightguide visible via the diffuser.

20. The closure of claim 19, wherein the diffuser is positioned at a distance from the second primary surface of the lightguide that is greater than about 10 mm.

21. The closure of claim 19, wherein the diffuser is positioned at a distance from the second primary surface of the lightguide that is less than about 23 mm.

22. The closure of any of claims 1 to 21, wherein the closure has a U-shape.

23. A nucleic material sequencer apparatus comprising:

a housing having an opening; and

a closure for selectively moving between an open position to provide access to one or more receptacles for a cartridge or other consumable media utilized by the material sequencer apparatus and a closed position to block access to the opening, the closure comprising:

a plurality of light sources;

a lightguide to distribute light from the plurality of light sources, the lightguide having a first primary surface opposite a second primary surface, and wherein light emitted from the lightguide indicates a status of the apparatus; and

a frame supporting the plurality of light sources and the lightguide.

24. The apparatus of claim 23, wherein the plurality of light sources comprise light-emitting diodes (LEDs).

25. The apparatus of claim 24, wherein the LEDs comprise:

a first set of LEDs positioned to emit light to a first side of the lightguide, the first set of LEDs mounted in a first row on a first side of a first circuit board, and

a second set of LEDs positioned to emit light to a second side of the lightguide opposite the first side, the second set of LEDs mounted in a second row on a first side of a second circuit board.

26. The apparatus of claim 25, wherein the first circuit board and the second circuit board are mounted to the frame of the closure.

27. The apparatus of claim 26, the closure further comprising:

a first dowel pin extending from the frame through the first circuit board and abutting the first side of the lightguide, and

a second dowel pin extending from the frame through the second circuit board and abutting the second side of the lightguide.

28. The apparatus of claim 25, wherein the first circuit board is mounted to an inside surface of the housing, wherein the first set of LEDs is proximate to the first side of the lightguide when the closure is in the closed position.

29. The apparatus of claim 28, wherein the second circuit board is mounted to the frame of the closure.

30. The apparatus of claim 28, wherein the second circuit board is mounted to the inside surface of the housing, wherein the second circuit board is proximate to the second side of the lightguide when the closure is in the closed position.

31. The apparatus of any of claims 23 to 30, further comprising a seal between the closure and the housing.

32. The apparatus of claim 31, wherein the seal comprises an air seal.

33. The apparatus of claim 31, wherein the seal comprises a dust seal.

34. The apparatus of claim 31, wherein the seal comprises an electromagnetic interference containment seal.

35. The apparatus of any of claims 23 to 34, wherein the first primary surface of the lightguide has a first surface treatment.

36. The apparatus of claim 35, wherein the first surface treatment comprises the first primary surface being a first abraded surface.

37. The apparatus of any of claims 35 to 36, wherein the second primary surface has a second surface treatment different from the first surface treatment.

38. The apparatus of claim 37, wherein the second surface treatment comprises the second primary surface being a glossy surface.

39. The apparatus of any of claims 35 to 36, wherein the second primary surface has a second surface treatment, wherein the second surface treatment comprises the second primary surface being a second abraded surface.

40. The apparatus of claim 35, wherein the first surface treatment comprises a light-extracting feature for the first primary surface.

41. The apparatus of claim 40, wherein the light-extracting feature comprises dots formed at the first primary surface.

42. The apparatus of claim 41, further comprising a first gradient of dot size extending between an edge of the first primary surface and a center of the first primary surface.

43. The apparatus of claim 42, further comprising at least one second gradient of dot size oriented in a direction different from a direction of the first gradient of dot size.

44. The apparatus of any of claims 23 to 43, wherein the apparatus is an instrument for analyzing nucleic material.

45. The apparatus of any of claims 23 to 44, further comprising a diffuser positioned proximate to the second primary surface of the lightguide, the light from the lightguide visible via the diffuser.

46. The apparatus of claim 45, wherein the diffuser is positioned at a distance from the second primary surface of the lightguide that is greater than about 10 mm.

47. The apparatus of claim 45, wherein the diffuser is positioned at a distance from the second primary surface of the lightguide that is less than about 23 mm.

48. The apparatus of any of claims 23 to 47, wherein the closure has a U-shape.

49. A closure for a nucleic material sequencer apparatus, the closure comprising:

a set of first light sources;

a substrate having a first primary surface opposite a second primary surface, the set of first light sources positioned proximate to the first primary surface of the substrate;

a first lightguide to distribute light from the set of first light sources, the first lightguide having a first primary surface opposite a second primary surface, the first primary surface of the first lightguide positioned proximate to the second primary surface of the substrate;

a first curved structure extending between the set of first light sources proximate to the first primary surface of the substrate and the first lightguide proximate to the second primary surface of the substrate, wherein light from the first lightguide indicates a status of the apparatus; and

a frame supporting the set of first light sources, the substrate, the first lightguide, and the first curved structure, the frame for selective movement of the closure relative to the apparatus to selectively provide access to one or more receptacles for a cartridge or other consumable media utilized by the material sequencer apparatus.

50. The closure of claim 49, wherein the first curved structure comprises a second lightguide.

51. The closure of claim 50, wherein the first lightguide and the second lightguide form a continuous lightguide.

52. The closure of claim 49, wherein the first curved structure comprises a curved mirror.

53. The closure of claim 49, further comprising a second lightguide proximate to the first primary surface of the substrate, the second lightguide extending between the set of first light sources and the first curved structure.

54. The closure of claim 49, further comprising:

a second set of light sources positioned proximate to the first primary surface of the substrate; and

a second curved structure extending between the second set of light sources proximate to the first primary surface of the substrate and the first lightguide proximate to the second primary surface of the substrate.

55. The closure of claim 54, wherein the second curved structure comprises a second lightguide.

56. The closure of claim 55, wherein the first lightguide and the second lightguide form a continuous lightguide.

57. The closure of claim 54, wherein the second curved structure comprises a curved mirror.

58. The closure of claim 54, further comprising a second lightguide proximate to the first primary surface of the substrate, the second lightguide extending between the second set of light sources and the second curved structure.

59. The closure of any of claims 49 to 58, further comprising a diffuser having a first primary surface opposite a second primary surface, the first primary surface of the diffuser positioned proximate to the second primary surface of the first lightguide, wherein the light from the first lightguide is visible via the diffuser.

60. The closure of claim 59, wherein the diffuser is positioned at a distance from the second primary surface of the first lightguide that is greater than about 10 mm.

61. The closure of claim 59, wherein the diffuser is positioned at a distance from the second primary surface of the first lightguide that is less than about 23 mm.

62. The closure of any of claims 49 to 61, wherein the closure has a U-shape.

63. A closure for a nucleic material sequencer apparatus, the closure comprising:

a set of light sources;

a reflector;

a diffuser to distribute light from the set of light sources, wherein light visible via the diffuser indicates a status of the apparatus; and

a frame supporting the set of light sources, the reflector, and the diffuser, the frame for selective movement of the closure relative to the apparatus to selectively provide access to one or more receptacles for a cartridge or other consumable media utilized by the material sequencer apparatus, wherein the frame has a gap between the diffuser and the reflector.

64. The closure of claim 63, wherein the set of light sources comprise light-emitting diodes (LEDs).

65. The closure of claim 64, wherein at least two of the LEDs are mounted in a first row on a first side of a first circuit board.

66. The closure of claim 65, wherein the LEDs include side-emitting LEDs.

67. The closure of claim 65, wherein the LEDs include top-emitting LEDs.

68. The closure of any of claims 65 to 67, wherein the first circuit board includes a flexible circuit board.

69. The closure of any of claims 65 to 67, wherein the first circuit board includes a rigid circuit board.

70. The closure of any of claims 65 to 69, wherein at least two of the LEDs are

mounted on a first side of a second circuit board, further comprising an interconnect for electrically coupling a second side of the first circuit board and a second side of the second circuit board, wherein the first side of the first circuit board and the first side of the second circuit board are opposite the second side of the first circuit board and the second side of the second circuit board.

71. The closure of any of claims 65 to 70, further comprising a lightguide positioned in the gap.

72. The closure of claim 71, wherein the LEDs comprise:

a first set of LEDs proximate to a first side of the lightguide, and

a second set of LEDs proximate to a second side of the lightguide opposite the first side, the second set of LEDs mounted in a second row on a first side of a second circuit board.

73. The closure of claim 72, further comprising a first dowel pin extending from the frame and through the first circuit board and abutting the first side of the lightguide, and a second dowel pin extending from the frame and through the second circuit board and abutting the second side of the lightguide.

74. The closure of any of claims 71 to 73, wherein the lightguide has a first primary surface and a second primary surface, and wherein the first primary surface has a first surface treatment.

75. The closure of claim 74, wherein the first surface treatment comprises the first primary surface being a first abraded surface.

76. The closure of any of claims 74 to 75, wherein the second primary surface has a second surface treatment different from the first surface treatment.

77. The closure of claim 76, wherein the second surface treatment comprises the second primary surface being a glossy surface.

78. The closure of any of claims 74 to75, wherein the second primary surface has a second surface treatment, wherein the second surface treatment comprises the second primary surface being a second abraded surface.

79. The closure of claim 74, wherein the first surface treatment comprises a light-extracting feature for the first primary surface.

80. The closure of claim 79, wherein the light-extracting feature comprises dots formed at the first primary surface.

81. The closure of claim 80, wherein the dots have different sizes, further comprising a first gradient of dot size extending between an edge of the first primary surface

and a center of the first primary surface.

82. The closure of claim 81, further comprising at least one second gradient of dot size oriented in a direction different from a direction of the first gradient of dot size.

83. The closure of any of claims 74 to 82, wherein the diffuser is positioned at a distance from the second primary surface of the lightguide that is greater than about 10 mm.

84. The closure of any of claims 74 to 82, wherein the diffuser is positioned at a distance from the second primary surface of the lightguide that is less than about 23 mm.

85. The closure of any of claims 63 to 84, wherein the closure has a U-shape.