heat conductive material ~~attached to or~~ embedded in a portion of the flexible wall.

[0011] In a fourth aspect of the disclosure, there is provided a jacketed, tiered baffle, bioreactor tank comprising: an outer cylindrical-shaped jacket; and a cylindrical tank having an inner tank surface defining a chamber configured for supporting a flexible bag disposed within the chamber, and an outer tank surface having tiered baffles configured for routing a heat exchange fluid around the entirety of the outer tank surface, the cylindrical tank disposed axially within the outer cylindrical-shaped jacket, wherein the outer cylindrical-shaped jacket is sealed to the cylindrical tank in a manner sufficient to prevent or minimize loss of the heat exchange fluid.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The foregoing and other non-limiting objects, features and advantages of the invention will be apparent from the following more particular description of illustrative embodiments of the invention, as illustrated in the accompanying drawings in which like reference characters refer to the same parts throughout the different views. The drawings are schematic and not intended to be drawn to scale, emphasis instead being placed upon illustrating the principles of the invention. The drawings are schematic and not intended to be drawn to scale, emphasis instead being placed upon illustrating the principles of the invention. The features illustrated or described in connection with one exemplary embodiment can be combined with the features of other embodiments. Such modifications and variations are intended to be included within the scope of the present invention.

[0013] FIG. 1A is a perspective view of a schematic representation of an exemplary heat exchange module having a serpentine flow path for a heat exchange liquid, and a partial cut-away view of an outer support structure or outer vessel wall.

comprises at least one of spiral, serpentine and maze-like pathways configured to maintain the thermally conductive surface at a desired temperature.

7. A container chosen from a flexible bioreactor bag, a flexible mixer bag, and a flexible tubing, the container comprising at least one double wall portion comprising an inner and an outer wall and a heat conductive material attached to or embedded in a portion of at least one of the inner wall and the outer wall.

8. A flexible polymeric wall chosen from a bioreactor wall, a mixer wall, and a tubing wall, the flexible wall comprising a heat conductive material ~~attached to or~~ embedded in a portion of the flexible wall.

9. A jacketed, tiered baffle, bioreactor tank comprising:

an outer cylindrical-shaped jacket; and

a cylindrical tank having an inner tank surface defining a chamber configured for supporting a flexible bag disposed within the chamber, and an outer tank surface having tiered baffles configured for routing a heat exchange fluid around the entirety of the outer tank surface, the cylindrical tank disposed axially within the outer cylindrical-shaped jacket,

wherein the outer cylindrical-shaped jacket is sealed to the cylindrical tank in a manner sufficient to prevent or minimize loss of the heat exchange fluid.

10. The jacketed, tiered baffle, bioreactor tank of claim 9, wherein at least one of the outer cylindrical-shaped jacket and the cylindrical tank comprises a heat conductive material.