Patent claims

1. A reactor comprising walls which enclose an interior space, and passages and/or connections in the walls, permitting connection of the interior space to the external surroundings, characterized in that the reactor, when filled with liquid, has a angular cross section parallel to the surface of the liquid and a floor which is curved or can be curved into the interior space.

2. The reactor as claimed in claim 1, characterized in that the floor which is curved or can be curved inward has edges which project into the interior space of the reactor.

3. The reactor as claimed in claim 1 or 2, characterized in that the floor which is curved or can be curved inward is of polyhedral, preferably pyramidal design.

4. The reactor as claimed in one of claims 1 to 3, characterized in that the height h of the curvature of the floor in a ratio to the circle-equivalent diameter d of the floor lies within the range of 3% to 100%, particularly preferably within the range of 5% to 30% and very particularly preferably within the range of 10% to 20%.

5. The reactor as claimed in one of claims 1 to 4, characterized in that the passages and/or connections are preferably provided in the side region of the reactor close to the floor edge.

6. The reactor as claimed in one of claims 1 to 5, characterized in that the walls are flexible and therefore the reactor is designed to be deformable.

7. A container for accommodating a reactor as claimed in one of claims 1 to 6, at least comprising

   - an interior space for accommodating the reactor,
   - an opening for the frontal introduction of the reactor into the container, wherein the opening can be closed and is designed to be liquid-tight in the closed state,
   - a floor which is curved inward into the interior space of the container,
   - a side channel, via which hoses and channels can be led up to the reactor.

8. The container as claimed in claim 7, characterized in that the inwardly curved floor is of polyhedral, preferably pyramidal design.

9. The container as claimed in either of claims 7 and 8, characterized in that the side channel runs between two spaced-apart walls, the walls reaching into the floor region of the disposable reactor, and the walls being removable for the frontal introduction of the disposable reactor into the container.

10. The container as claimed in one of claims 7 to 9, furthermore comprising a connecting plate which is arranged laterally in the region of the curved floor and serves for the fixing and/or guiding of couplings and/or hoses which can be connected to the reactor.

11. The container as claimed in claim 10, characterized in that the connecting plate is open laterally and, in order to fix the disposable reactor in the container, can be pushed laterally over the connections of the disposable reactor.

12. The container as claimed in one of claims 7 to 11, furthermore comprising heating and/or cooling elements which are mounted in and/or on walls of the container.

13. A device at least comprising a reactor as claimed in one of claims 1 to 6, a drive unit for generating a rotating-oscillating motion of the reactor, and optionally a container as claimed in one of claims 7 to 12, if the reactor is designed to be deformable.

14. The device as claimed in claim 13, furthermore comprising a frame and a locking system permitting operating staff access to the reactor only during an operational shutdown.

15. The use of a device as claimed in either of claims 13 and 14 for cultivating cells and/or microorganisms.

CLAIMS

1. An invention not claimed in any divisional application.