Claims

1. A structure that is used in the treatment of a fluid, comprising:

a body having an axis;

a plurality of curved fluid flow paths that rotate around the axis of the body, and extend continuously along at least a portion of the body,

wherein the body comprises a plurality of sheets, each sheet having a helicoidal structure and forming a continuous surface that rotates around the axis of the body and extends along the at least a portion of the body,

wherein the fluid flow paths are defined by the plurality of sheets,

wherein each fluid flow path rotates around the axis with a constant radius, and

wherein the sheets of the plurality of sheets are arranged approximately parallel to one another.

2. The structure of claim 1, wherein each fluid flow path is formed by or comprises a plurality of corrugations in the plurality of sheets.

3. The structure of claim 2, wherein adjacent sheets are arranged relative one another so that corrugations in one sheet face and are aligned with corrugations in an adjacent sheet to form respective fluid flow paths having the appearance of a hexagon without parallel side walls.

4. The structure of claim 1, wherein each fluid flow path comprises one or more walls that extend away from a surface of the plurality of sheets.

5. The structure of claim 1, wherein the body has a plurality of mutually isolated fluid flow paths.

6. The structure of claim 5, wherein the fluid flow paths are coaxially arranged.

7. The structure of claim 5, wherein the fluid flow paths are arranged linearly relative one another.

8. The structure of claim 6, wherein a wall delimits the mutually isolated fluid flow paths.

9. The structure of claim 1, wherein each fluid flow path is provided with one or more protrusions that increase a surface area of the flow path.

10. The structure of claim 1, wherein each fluid flow path is provided with one or more apertures.

11. The structure of claim 1, wherein a diameter of the structure is 100 mm or less.

12. The structure of claim 1, wherein the structure forms a modular structure unit, and wherein a plurality of modular structure units can be combined with one another to form a structure assembly.

13. The structure of claim 12, where a perimeter of the body is defined by a polygon such that adjacent bodies can be tessellated with one another to form the structure assembly.

14. A structure assembly comprising a plurality of the modular structure units of claim 13.

15. The structure assembly of claim 14, wherein a diameter of the structure assembly is at least two times a diameter of one of the plurality of modular structure units.

16. The structure assembly of claim 14, wherein a maximum diameter of the assembly is 500 mm or less.