Claims

1. Treatment device, which is adapted for destructing micro-organisms in a gaseous or liquid medium to be treated, comprising:
- a treatment substance having an inner hollow structure and being contained in an enclosure accommodating a flow of the medium through the inner hollow structure, wherein
- the inner hollow structure has internal cutting edges which are arranged for destructing the micro-organisms by a mechanical contact of the micro-organisms with the cutting edges of the hollow structure.

2. Treatment device according to claim 1, wherein
- the treatment substance comprises particles being arranged in the enclosure and having the cutting edges.

3. Treatment device according to claim 2, including at least one of the features
- the treatment substance comprises at least one of metal, in particular steel, copper or aluminium, glass, ceramic and diamond particles, and
- the particles have a size above 10 µm, in particular above 20 µm, and below 500 µm, in particular below 250 µm.

4. Treatment device according to one of the foregoing claims, including at least one of the features
- the treatment substance has a Mohs hardness of at least 5, in particular at least 6, and

10. Treatment device according to one of the foregoing claims, further comprising at least one of
- a medium container accommodating the medium to be treated and being in fluid communication with the enclosure,
- a barrier element arranged at an output opening of the enclosure, wherein the barrier element is permeable for the medium to be treated and impermeable for the treatment substance.

11. Treatment device according to claim 10, wherein
- the barrier element is impermeable for the destroyed micro-organisms, and/or
- the barrier element includes activated carbon.

12. Treatment plant, which is adapted for destructing micro-organisms in a gaseous or liquid medium to be treated, including multiple treatment devices according to one of the foregoing claims.

13. Treatment plant according to claim 12, wherein
- the treatment devices are coupled in parallel or in series.

14. Method of treating a gaseous or liquid medium including micro-organisms, wherein a treatment device according to any one of claims 1 to 12, comprising the steps of:
- flowing the medium through the treatment substance, and
- destructing the micro-organisms by mechanically contacting the micro-organisms with the internal cutting edges of the hollow structure.