Claims

1. A heat transfer tube comprising a twisted baffle arranged on an inner wall of the tube, said twisted baffle extending spirally along an axial direction of the heat transfer tube, wherein the twisted baffle is provided with a plurality of holes and the ratio of the sum area of the plurality of holes to the area of the twisted baffle is in a range from 0.05:1 to 0.95:1.

2. The heat transfer tube according to claim 1, characterized in that the ratio of the sum area of the plurality of holes to the area of the twisted baffle is in a range from 0.6:1 to 0.8:1.

3. The heat transfer tube according to claim 1, characterized in that the ratio of an axial distance between the centerlines of two adjacent holes to an axial length of the twisted baffle ranges from 0.2:1 to 0.8:1.

4. The heat transfer tube according to claim 1, characterized in that the twisted baffle has a twist angle of between 90° to 1080°, preferably between 120° to 360°.

5. The heat transfer tube according to claim 4, characterized in that one single region of the heat transfer tube is provided with a plurality of twisted baffles parallel to one another, which define an enclosed circle viewed from one end of the heat transfer tube.

6. The heat transfer tube according to claim 5, characterized in that the diameter ratio of the circle to the heat transfer tube falls within a range from 0.05:1 to 0.95:1, preferably from 0.6:1 to 0.8:1.

7. The heat transfer tube according to claim 5, characterized in that along the trajectory of the circle a casing is arranged, which is fixedly connected to a radial inner end of the twisted baffle.

8. The heat transfer tube according to claim 5, characterized in that the ratio of

the axial length of the twisted baffle to an inner diameter of the heat transfer tube is a range from 1:1 to 10:1, preferably from 2:1 to 4:1.

9. A cracking furnace having a radiant coil, characterized in that the radiant coil comprises at least one, preferably 2 to 10 heat transfer tubes according to claim 1.

10. The cracking furnace according to claim 9, characterized in that the plurality of heat transfer tubes are arranged in the radiant coil along an axial direction thereof in a manner of being spaced from each other, the ratio of a spacing distance to the diameter of the heat transfer tube is in a range from 15:1 to 75:1, preferably from 25:1 to 50:1.