Claims

1. A conveyor dishwasher (1) for washing washware, wherein the conveyor dishwasher (1) has at least one wash zone (10, 11.1, 11.2, 11.3) with at least one wash nozzle (30a, 30b, 31.1a, 31.1b, 31.2a, 31.2b, 31.3a, 31.3b) for spraying wash liquid onto the washware, and has at least one final rinse zone (13.1) with at least one final rinse nozzle (33a, 33b) for spraying final rinse liquid onto the washware, and wherein a metering device which is associated with the final rinse zone (13.1) is provided for adding a disinfectant to the final rinse liquid in a metered manner, wherein a sensor device (70) is provided, this sensor device being configured to detect the concentration of disinfectant in the final rinse liquid which is sprayed in the final rinse zone (13.1), and wherein a control device (100) is provided, this control device being configured to compare the value of the concentration of disinfectant which is detected by the sensor device (70) with predefinable concentration values and, in the event of excessively high deviations of the concentration of disinfectant from the predefinable concentration values, to interrupt the dishwashing process or to output a warning signal to an operator ~~wherein~~ the control device (100) ~~is~~ being designed in such a way that the maximum permissible deviations of the concentration of disinfectant from the predefinable concentration values can be adjusted~~.~~.

~~2. The conveyor dishwasher (1) as claimed in claim 1,~~ wherein the control device (100) is configured to use a first definable value for the permissible deviation when the value of the concentration of disinfectant which is measured by the sensor device (70) is greater than the predefined concentration value, and to use a second definable value for the permissible deviation when the value of the concentration of disinfectant which is measured by the sensor device (70) is less than the predefined concentration value.

2. The conveyor dishwasher (1) as claimed in claim 1, ~~and/or~~wherein the conveyor dishwasher has a conveyor apparatus (2), in particular a conveyor belt, for conveying washware through the at least one wash zone and the at least one final rinse zone, and wherein the control device (100) is configured to stop the conveyor apparatus as soon as the maximum permissible deviations of the concentration of disinfectant from the definable concentration values are exceeded.

3. The conveyor dishwasher as claimed in claim 1 or claim 2, ~~and/or~~ wherein the control device (100) is configured to interrupt the spraying of wash liquid and/or final rinse liquid as soon as the maximum permissible deviations of the concentration of disinfectant from the definable concentration values are exceeded.

4.~~3.~~ The conveyor dishwasher (1) as claimed in any one of the preceding claims,

wherein the control device (100) is configured to output an optical or acoustic warning signal as soon as the maximum permissible deviations of the concentration of disinfectant are exceeded.

5.~~4.~~ The conveyor dishwasher (1) as claimed in claim 3, wherein the control device (100) is configured to output causes for the deviations of the concentration of disinfectant from the definable concentration values together with the optical or acoustic warning signal.

6.~~5.~~ The conveyor dishwasher (1) as claimed in any one of the preceding claims, wherein the control device (100) is configured to interrupt the dishwashing process or to output a warning signal to an operator as soon as a concentration of disinfectant falls below 50 ppm and/or as soon as a concentration of disinfectant rises above 100 ppm.

7.~~6.~~ The conveyor dishwasher (1) as claimed in any one of the preceding claims, wherein the metered disinfectant ~~contains a~~ chlorine solution, ~~in particular~~ is either sodium hypochloride or hypochlorous acid.

8.~~7.~~ The conveyor dishwasher (1) as claimed in claim 6, wherein the sensor device (70) is designed to detect free chlorine radicals.

9.~~8.~~ The conveyor dishwasher (1) as claimed in claim ~~8~~7, wherein the sensor device (70) is designed to detect free chlorine radicals in a concentration range of between 0 and 200 ppm.

10.~~9.~~ The conveyor dishwasher (1) as claimed in claim ~~8~~7 or claim ~~9~~8, wherein the sensor device (70) is designed to detect free chlorine radicals with a measurement resolution of ±10 ppm, preferably ±5 ppm, and particularly preferably 35 of ±3 ppm.

11.~~10.~~ The conveyor dishwasher (1) as claimed in any one of the preceding claims, wherein the sensor device (70) is designed to detect the concentration of disinfectant continuously or at predefinable time intervals.

12.~~11.~~ The conveyor dishwasher (1) as claimed in any one of the preceding claims, wherein the conveyor dishwasher (1) has a final rinse liquid line (41) which is connected or can be connected to the final rinse nozzles (33a, 33b), and wherein the sensor device (70) is designed to measure the concentration of disinfectant directly in, or by means of a branch of, the final rinse liquid line (41).

13.~~12.~~ The conveyor dishwasher (1) as claimed in any one of the preceding claims,

wherein the liquid which is sprayed in the at least one wash zone has a temperature of less than 60°C, and preferably less than 55°C, and/or wherein the liquid which is sprayed in the at least one final rinse zone has a temperature of less than 80°C, preferably less than 75°C.

14.~~13.~~ The conveyor dishwasher (1) as claimed in any one of the preceding claims, wherein the conveyor dishwasher further has at least one pre-rinse zone (12) with at least one pre-rinse nozzle (32a, 32b), which pre-rinse zone is arranged upstream of the final rinse zone (13.1), wherein metering device which is associated with the pre-rinse zone (12) is further provided for adding a disinfectant to the pre-rinse liquid in a metered manner, and
wherein the sensor device (70, 71) is further configured to detect the concentration of disinfectant in the pre-rinse liquid which is sprayed in the pre-rinse zone (12).

15.~~14.~~ The conveyor dishwasher (1) as claimed in claim 14~~13~~, wherein at least a portion of the final rinse liquid which is sprayed in the final rinse zone (13.1) is reused as pre-rinse liquid.

16.~~15.~~ A method for operating a conveyor dishwasher (1), wherein the conveyor dishwasher (1) has at least one wash zone (10, 11.1, 11.2, 11.3) with at least one wash nozzle (30a, 30b, 31.1a, 31.1b, 31.2a, 31.2b, 31.3a, 31.3b) for spraying wash liquid onto the washware, and has at least one final rinse zone (13.1) with at least one final rinse nozzle (33a, 33b) for spraying final rinse liquid onto the washware, and wherein a metering device which is associated with the final rinse zone (13.1) is provided for adding a disinfectant to the final rinse liquid in a metered manner, wherein the method comprises the following method steps:

- detecting – by means of a sensor device (70) –the concentration of disinfectant in the final rinse liquid which is sprayed in the final rinse zone (13.1), and
- comparing – by means of a control device (100) –the value of the concentration of disinfectant which is detected by the sensor device (70) with predefinable concentration values and, in the event of excessively high deviations of the concentration of disinfectant from the predefinable concentration values, interrupting the dishwashing process or outputting a warning signal to an operator, wherein the method further comprises the steps of adjusting the maximum permissible deviations of the concentration of disinfectant from the predefinable concentration values, wherein the control device (100) is configured to use a first definable value for the permissible deviation when the value of the concentration of disinfectant which is measured by the sensor device (70) is greater than the predefined concentration value, and to use a second definable value for the permissible deviation when the value of the concentration of disinfectant which is measured by the sensor device (70) is less than the predefined concentration value.