Claims

1. A water processing device which is provided for removing micro-pollutants from water, said device comprising an adsorption housing (34a - 34d) and at least one adsorption unit (18a - 18d) which is arranged in the adsorption housing (34a - 34d) and which at least partially adsorbs the micro-pollutants in an operating state and which comprises at least one non-specific adsorption element (50a - 50d), wherein the non-specific adsorption element (50a – 50d) comprises activated carbon and/or a mineral adsorbent, wherein the mineral adsorbent is selected from bentonite, diatomaceous earth, silica gel, alumina, zinc oxide and mixtures thereof, wherein the adsorption unit (18a - 18d) comprises at least one specific adsorption element (52a - 52d), wherein the specific adsorption element (52a - 52d) comprises at least one reversed-phase adsorbent and wherein the specific adsorption element (52a - 52d) comprises at least one ion exchanger adsorbent and/or at least one adsorbent which is provided for adsorption by means of hydrogen bridges.

2. A water processing device according to claim 1, wherein the non-specific adsorption element (50a - 50d) and the specific adsorption element (52a - 52d) are in contact with one another at least in part.

3. A water processing device according to claim 1, wherein the non-specific adsorption element (50a - 50d) and the specific adsorption element (52a - 52d) are arranged within one another at least in part.

4. A water processing device according to claim 1, wherein the non-specific adsorption element (50a - 50d) comprises a main body (54a - 54d) of the adsorption unit (18a - 18d) at least in part.

5. A water processing device according to claim 1, wherein the specific adsorption element (52a - 52d) comprises at least one complexing agent adsorbent, wherein the complexing agent adsorbent comprises one or a plurality of charged ligands.

6. A system comprising a water processing device according to claim 1 and comprising at least one pre-filtration unit (56a) arranged upstream of the water processing device in respect of the direction of flow.

7. A method of processing water for removing micro-pollutants in the form of medicaments from water by using the water processing device according to any one of claims 1 to 5 or a system according to claim 6.