CLAIMS

1. A method for treating water in order to reduce the dissolved silica content thereof, characterised in that it comprises:

- at least one step of adsorbing said dissolved silica by passing said water through a reactor housing an adsorbent granular material consisting of grains of iron oxyhydroxide (III) and optionally of iron hydroxide (III), at least part of said adsorbent granular material being in the form of akaganeite; and
- at least one step of regenerating the adsorbing power of said granular material by bringing said granular material into contact with a base and at least one chloride.

2. The method according to claim 1 characterised in that said material comprises at least 5% by weight of akaganeite.

3. The method according to any one of claims 1 or 2, characterised in that said regeneration step is carried out with a regeneration solution containing said base and said chloride.

4. The method according to any one of claims 1 or 2, characterised in that said regeneration step is carried out with two regeneration solutions, one containing said base, the other containing said chloride.

5. The method according to any one of claims 1 to 4, characterised in that said base is selected from the group consisting of NaOH, KOH, NH_4OH, LiOH.

6. The method according to any one of claims 1 to 5 characterised in that said chloride is selected from the group consisting of NaCl, KCl, LiCl, NH_4Cl, $MgCl_2$, $CaCl_2$, $BaCl_2$, $MnCl_2$.

7. The method according to any one of claims 1 to 6 characterised in that said granular material is used in the form of a fixed bed and said adsorption step is carried out with a volume load comprised between 5 and 30 cubic metres of water passing per cubic metre of granular material and per hour.

8. The method according to any one of claims 1 to 7 characterised in that said grains of iron hydroxide (III) and/or iron oxyhydroxide (III) have a size comprised between 0.2 mm and 5 mm.