CLAIMS:

1. A system for dissolving solid chemical comprising:

a solid chemical reservoir configured to receive solid chemical to be dissolved, the solid chemical reservoir have a porous bottom wall and at least one sidewall extending vertically upwardly from the porous bottom wall;

a solution generator reservoir surrounding the porous bottom wall and at least a portion of the sidewall of the solid chemical reservoir, the solution generator reservoir having an opening through which dissolved chemical generated in the solution generator reservoir is configured to be discharged;

a dissolved chemical reservoir in selective fluid communication with the solution generator reservoir via the outlet opening;

a recirculation circuit that includes a recirculation pump and a recirculation line having an outlet aimed at the porous bottom wall, the pump being configured to draw fluid from the solution generator reservoir and discharge the fluid through the outlet of the recirculation line; and

a controller configured to:

control addition of water to the solution generator reservoir at least until the porous bottom wall of the solid chemical reservoir is submerged in the water;

control the recirculation circuit to recirculate fluid in the solution generator reservoir to generate a solution having a target concentration of the solid chemical via erosion of solid chemical in the solid chemical reservoir; and

control discharge of the solution to the dissolved chemical reservoir.

2. The system of claim 1, further comprising a delivery pump configured to draw solution from the dissolved chemical reservoir and deliver pressurized solution, wherein the delivery pump is configured to operate at a higher pressure and lower volume than the recirculation pump.

3. The system of either of claims 1 and 2, further comprising a generator housing in which the solid chemical reservoir, the solution generator reservoir, the dissolved chemical reservoir, and the recirculation circuit are provided, wherein the solid chemical reservoir and the solution generator reservoir are positioned over a top surface of the solution generator reservoir.

4. The system of claim 3, wherein

the solution generator reservoir has a bottom wall and at least one sidewall defining a cavity into which the solid chemical reservoir is inserted, and

the sidewall of the solution generator reservoir is offset from the generator housing to define a space in which the recirculation pump is positioned.

5. The system of either of claims 3 and 4, further comprising a chemical dispensing docking station positioned on a top surface of the generator housing over the solid chemical reservoir.

6. The system of any one of the foregoing claims, wherein the outlet of the recirculation line is positioned under the sidewall of the solid chemical reservoir.

7. The system of any one of the foregoing claims, wherein the outlet of the recirculation line is positioned co-planar with the porous bottom wall of the solid chemical reservoir.

8. The system of any one of the foregoing claims, wherein the porous bottom wall has a conical shape.

9. The system of any one of the foregoing claims, further comprising at least one filter layer secured to the porous bottom wall of the solid chemical reservoir.

10. The system of any one of the foregoing claims, wherein the opening of the solution generator reservoir is in selective fluid communication to a water line via a valve and the controller is configured to control addition of water through the opening by controlling the valve.

11. The system of any one of the foregoing claims, further comprising a sensor configured to generate information indicative of the concentration of the solid chemical in the fluid, wherein the controller is configured to control the recirculation circuit to terminate recirculation of fluid in the solution generator reservoir when information received from the sensor indicates that the fluid has reached the target concentration.

12. The system of any one of the foregoing claims, wherein the controller is configured to discharge solution in the dissolved chemical reservoir after the solution has been in the dissolved chemical reservoir a threshold amount of time and generate a fresh batch of the solution.

13. A method comprising:

introducing water into a solution generator reservoir that surrounds a porous bottom wall and at least a portion of a sidewall of a solid chemical reservoir containing solid chemical to be dissolved until a height of water in the solution generator reservoir wets some but not all of the solid chemical in the solid chemical reservoir;

recirculating fluid in the solution generator reservoir by drawing fluid out of the solution generator reservoir with a pump and reintroducing the fluid into the solution generator reservoir through a recirculation line having an outlet aimed at the porous bottom wall of the solid chemical reservoir, wherein fluid is recirculated until a solution having a target concentration is generated via dissolution of solid chemical in the solid chemical reservoir;

discharging the solution from the solution generator reservoir into a dissolved chemical reservoir.

14. The method of claim 13, further comprising drawing solution from the dissolved chemical reservoir with a delivery pump and delivering pressurized solution, wherein the delivery pump operates at a higher pressure and lower volume than the pump used to recirculate fluid.

15. The method of either of claims 13 and 14, further comprising a generator housing in which the solid chemical reservoir, the solution generator reservoir, the dissolved chemical reservoir, and the pump are provided, wherein the solid chemical reservoir and the solution generator reservoir are positioned over a top surface of the solution generator reservoir and discharging the solution from the solution generator reservoir into the dissolved chemical reservoir comprises conveying the solution vertically downwards from the solution generator reservoir into the dissolved chemical reservoir within the generator housing.

16. The method of claim 15, further comprising engaging a reservoir containing chemical to be added to the solid chemical reservoir with a chemical dispensing docking station

positioned on a top surface of the generator housing, and opening the reservoir to add the solid chemical to the solid chemical reservoir.

17. The method of any one of claims 13–16, wherein the outlet of the recirculation line is positioned under the sidewall of the solid chemical reservoir.

18. The method of any one of claims 13–17, wherein the outlet of the recirculation line is positioned co-planar with the porous bottom wall of the solid chemical reservoir.

19. The method of any one of claims 13–18, further comprising

measuring information indicative of the concentration of the solid chemical in the fluid, and

terminating recirculation of the fluid based on received information indicating that the fluid has reached the target concentration.

20. The method of any one of claims 13–19, wherein introducing water into the solution generator reservoir comprises introducing water through an opening in the solution generator reservoir, and discharging the solution from the solution generator reservoir into the dissolved chemical reservoir comprises discharging the solution through the same opening in the solution generator reservoir through which water was introduced.