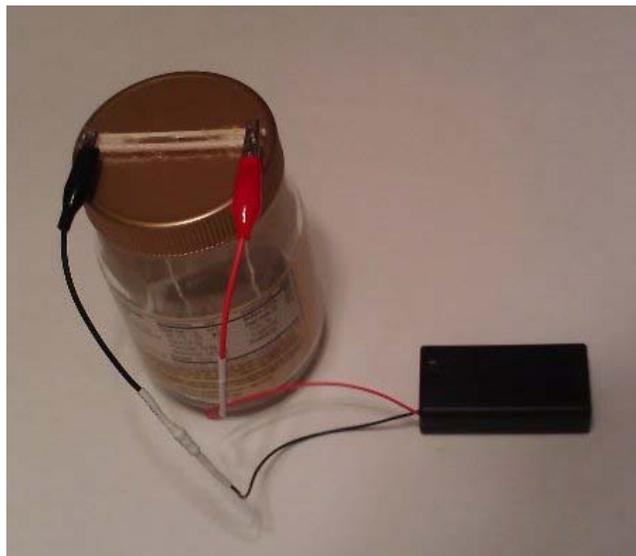


# Colloidal Silver Maker

(12/23/2015)

## A Simple and Highly Effective Colloidal Silver Maker

This is a very good way to make colloidal silver in any environment primitive or not. The only thing needed on a continuing basis is distilled water and occasionally charging or changing the battery.



A 16 oz mayonnaise jar was used and a 2-AA switch box battery holder case. The electrodes were bent to make a "Z" at the top and hot melt glue with a couple of wood stick to hold it firmly to the top. A 5K ohm resistor is shown in the heat shrunk white tubing on the black wire. Number 14 gauge 99.99% silver wire was used for the electrodes.

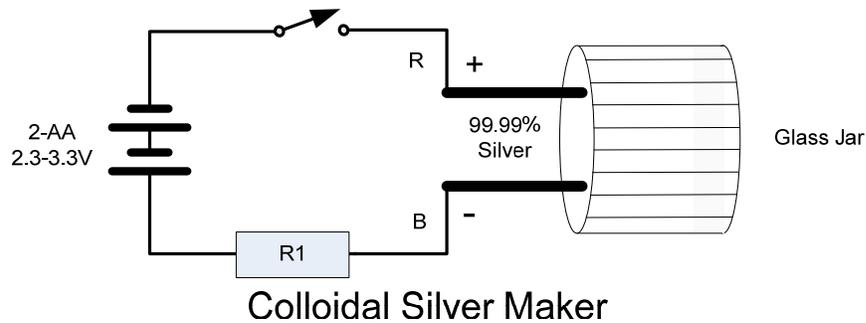
The electrodes can be kept clean by periodically reversing the polarity. Eventually after several batches the electrodes become rough and porous with use. As far as I can tell this does not deter from the making process. If after many batches, the electrodes can be gently cleaned with a plastic abrasive scrubbing pad and distilled water. Don't be aggressive enough to remove metal. Wipe clean using a paper towel and distilled water.

The colloid that is produced is a very good quality and last quite a while if kept in a glass container. My tests show it can be kept for a year with no loss in PPM. The circuit is very simple. For R1 use about 5k ohms. This is optional. I have found that if present it tends to help keep one from wasting silver or battery power on solutions that are either already full of silver or have high dissolved solids. Also if the battery leads short out, nothing much happens.

A lot of colloidal silver makers use 9V DC and above. The size of the silver particles from independent studies becomes too big to be effective at higher voltages. The colloidal silver maker described in this writer up produces Nano-particles of silver that is similar to some of the best silver colloids available.

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## Instructions on how to use:

The cleaner everything is the better it works. Rinse with several rounds of distilled water everything before starting the first run. Second and succeeding runs if not contaminated (say by touching it) then just add new distilled water. Add distilled water, turn on the unit, and wait 12 hours and if using 16 jar you should have around 5 PPM silver. 24 hours gives about 10 PPM.

You can run it longer but this will start to produce sediment that floats as scum on the surface first and later black mud at the bottom that is wasted silver. In other words when the solution is full of silver it drops out of solution and becomes a not usable waste product. The point is shut it off when you see silver dropping out of solution.

If desirable, every so often say every 12 hrs, or when you see black starting to form on one of the electrodes then un-clip and clip to the other terminal, effectively reversing polarity. This will keep the electrodes clean and use up the silver on both electrodes uniformly.

A small low cost red laser point can be used to see the particles in solution. Shine it through the glass on the side below water level. A TDS (total dissolved solids) tester can be used to measure the PPM. Also this can be used to test the purity of your distilled water. It should read zero in good distilled water.

## Things to be known about when making and using homemade colloidal silver.

**If using the result to purify water** then use the results straight.

**If intending to take internally:** Put a bit of salt (a very small bit or a few grains) in the final result to precipitate silver chloride out of solution. Then filter using coffee filter or let it settle out and pour off the top liquid. The silver particles that are left will not be ions but will be un-charged particles of silver (a true colloid) and will go into the blood stream and kill bacteria in the body. If the ions are left in solution they will precipitate out when the hydrochloric stomach acid hits it. No need to have the intestinal track filter the silver chloride out. This process does lower the PPM and also makes the results not testable using a dissolved solids tester.

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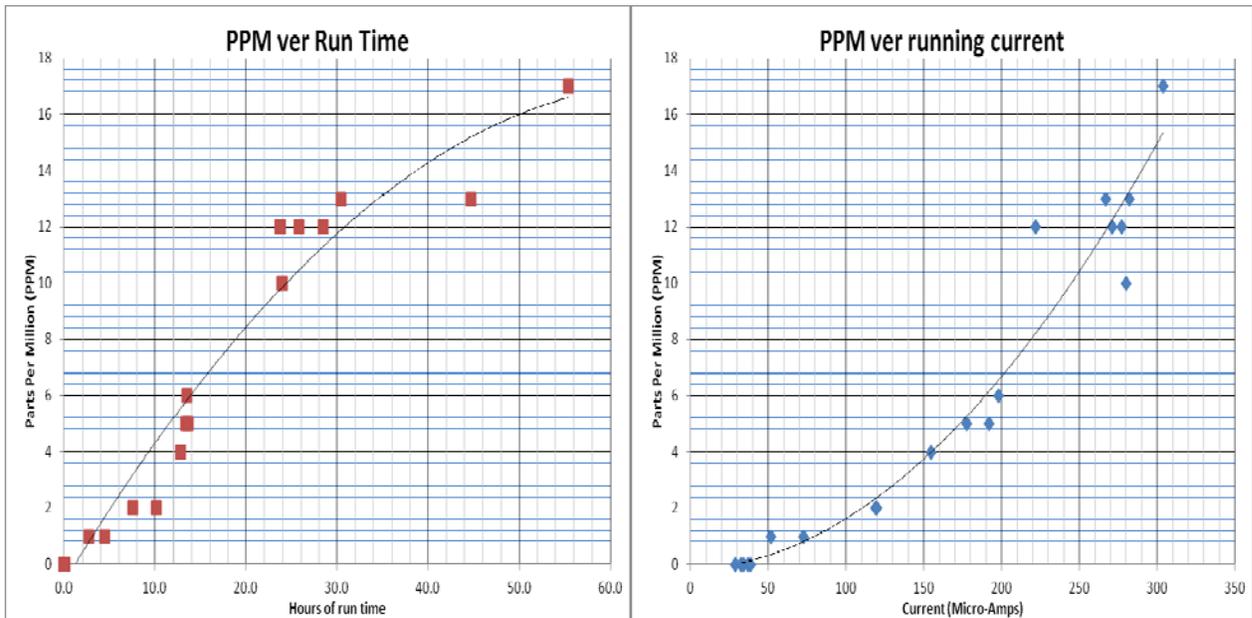
## Comments and Observations

The laser pointer starts to show visible particles around 2 PPM. If your distilled water shows an initial current of between 30-40 micro-amps or less then your water is as good as or better than my arrowhead distilled water used to do the following curves.

After one year where 7 testing samples were sitting in indoor light in a glass container 4 showed higher PPMs and 3 showed lower PPMs ending up averaging out the same as the PPM measured after just being made. The electrodes were not cleaned between each run. Nothing was touched inside the glass container including the electrodes. The polarity of the electrodes was changed if one side started to show black. During this initial testing time the electrodes were not cleaned. It is interesting to note that the last two batches number 6 and 7 after one year showed the highest PPM and had gone up in PPM and were very slightly golden in color. The first 4 batches after 1 year had some black spots stuck to the side and bottom but were otherwise clear. I suspect the results improved for the last two runs as a result of the electrodes not being cleaned.

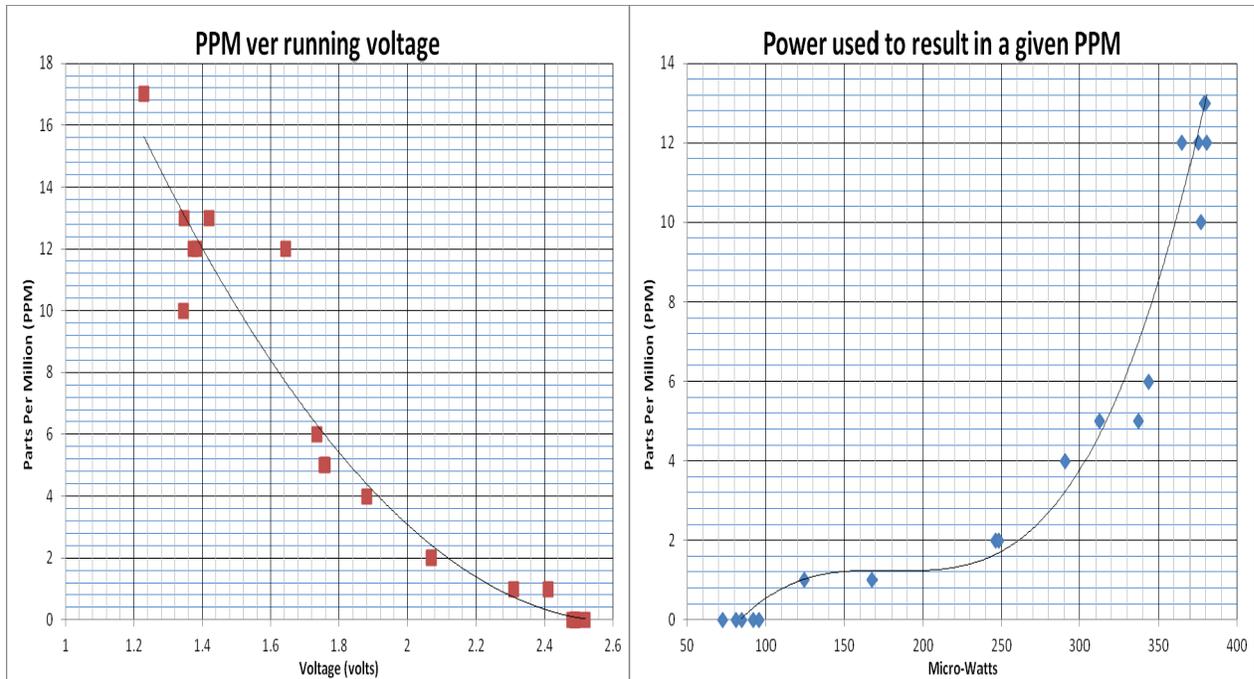
I tested one batch using tap water and the laser testing showed few colloidal particles after the batch was just made or at the end of a year sitting. All I can say is some silver made it into solution. In an emergency situation where no distilled water was present would I use what water I found? Yes, absolutely. Especially if the use is to purify water by killing bacteria in it.

On an average 5 PPM can be produced in 12 hours and 10 PPM in 24 hours and 15 PPM in 48 hours. Floating scum and drop out black mud starts around 5-10 PPM depending on how clean it was to start with. One should not try to go above 16-19 PPM. You will just be wasting silver for that seems to be about the maximum at the room temperature of 72 degree F that the water will hold. In fact one should typically stay below 10 PPM to maximize the use of the silver electrodes.



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For more info on this subject see the following:

<http://meissnerresearch.com/products/silver-generator>

<http://www.silver-colloids.com/Reports/reports.html>