

# REACTIVE METALS STUDIO, INC.



## Using Rokusho

The traditional Japanese patina  
by  
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# Rokusho



Dear Metaliods: After two days of pretty exhaustive testing here is a Rokusho mix that works every time.

## Tools and materials:

One copper pot solid or silver solder seamed. Do not use a soft soldered pot. If using a new pot, it needs to have a fresh bath of patina solution simmered in it for at least one hour. The pot will become fully "tempered" after a few solutions have been used in it.

Water, all water should be untreated, soft water, rainwater, or distilled water. Water pollution in some places may preclude using rain, well or surface water.

Daikon Radish, a long white mild radish. Grate this radish fresh for each use. The radish is not required if silver is not one of the metals being colored. If silver is in the object being colored, such as a silver/copper mokume, the radish is needed to keep the silver from getting a yellow film. The Daikon radish also subtly changes the colors of other copper alloys.

To make the standard solution mix:

1 liter Water

4.5 grams Rokusho salts

3grams Cupric Sulfate ( $\text{CuSO}_4$ )

(This is not optional, good color does not develop without the  $\text{CuSO}_4$ .)

Bring the water to a simmer and add the Rokusho. Stir until dissolved with a wooden stick not metal. Add the cupric sulfate.

Maintain the solution at a simmer, just below a boil. Add water to keep the amount of solution constant. More Rokusho may be added to extend the life of a bath, add about half the amount used in the initial mix.

If using Daikon radish, grate enough to add about a quarter of the volume to the solution. Grate more Daikon for rubbing on the works surfaces and reserve.

From here on wear rubber gloves.

To patina the work, first pickle and brush with either a stainless or bristle brush until absolutely free of oxides and fingerprints. (This patina is very sensitive to fingerprints). Rinse and while still wet rub with the grated Daikon to coat the surface.

Suspend the work from copper or bronze wires (silver is OK) from a stick (do not use metal) across the top of the pot. The work should be suspended such that it does not touch the sides of the pot. Avoid all contact with iron. Immerse in the simmering solution.

Coloring will commence quickly, with full color developing in 15 to 30 minutes. Keep a container of rinse water nearby to rinse the work in. Do not let the solution dry on the piece. After the desired depth of color is achieved remove it from the bath and rinse well in warm water. Rub/pat dry with a soft towel or cloth.

Some people like to coat the finished work with clear wax or oil, this can make future repatination difficult. Avoid extensive handling of the object, this is a somewhat fragile surface. Not recommended for high wear items.

The colors to be expected are:

Copper: A leathery orange to reddish brown.

Shakudo: Bright to deep, purple to blue.

25% Shibuichi: Silver to light brown depending on the amount of silver on the surface.

15% Shibuichi: Light yellow green to yellow depending on the amount of silver on the surface.

5% Shibuichi: Dark olive green

All silver mokume mixes will patina to darker colors than when the metals are used by themselves. Gold is not affected by the patina.

Slight variations in color are to be expected. The light reflectivity of metal surfaces is not changed. Highly polished surfaces will be the most difficult to patina and are not recommended. A bright, fine matt surface will work very well.

This stuff is amazingly stable and fool proof provided the directions regarding water, cleaning and temperature are observed.

Go for it.

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