

Nano Layering of Copper

Hot Caustic Method



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The following document is composed from the transcript of the Keshe Foundation Understanding Plasma Science Series – Part 3

<https://www.youtube.com/watch?v=lq8r4zOR82g&list=PLpCKWzA-bp9unXm9drxdDwX82l6QtYqc-&index=3>

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Nano Layering of Copper.

In this section we're going to be looking at the Nano-layering of copper.



Original Copper Plate

Now there are obviously a lot of different methods out there. We are going to show the method that gets the best results to use on your plates to make GANS, as well as wires for pens and MAGRAVS.

NANO-PARTICLES (Electron Microscope)



Today we're just going to focus on the hot caustic bath method. Later we will detail other methods, but today we just want to bring across a very important method that people need to use and understand why they are creating their layers.

Before we start it's always very important to understand how you treat your Nano-layers once you've created them. So I want to start off with this first because we have to realise that these are really, really delicate layers when you are creating them, so when you are handling your Nano plates or your copper coils, you should use gloves and only touch the very edges and to not move your box around while the process is going on with your Nano-layering.



Just to give you an illustration, we've all, as kids, stuck our finger onto those tiny little ice crystals in your freezer. If you just imagine your Nano-layers are like that so that with every touch you are damaging tiny little layers of your Nano Material.



Ice Crystals

If you bear this in mind you'll realise how delicate you have to be to handle this material.

List of Materials

We start off with a list of materials that one needs to put together. Please bear in mind when you're doing this that preparation is key. Have everything organised and prepared before you even start, because it's no use to try and run around and look for things when you're halfway through something.

- gloves (chemical resistant)
- safety glasses
- plastic box with lid
- caustic soda – NaOH – sodium hydroxide
- potassium hydroxide – KOH
- chicken mesh/wire
- wire cutters
- copper plates or wire
- scale
- measuring jug

One needs a pair of chemically resistant gloves, not any cotton gloves or any other type of gloves. Safety glasses, a plastic box with a lid, caustic soda, (sodium hydroxide), and potassium hydroxide. Chicken wire mesh, wire cutters, your copper plates or wire or any other copper device you're wanting to Nano-coat, a scale to be able to measure how much caustic soda you're going to be using, and a measuring jug for your water. These are the things that one has to put together first.

Regarding safety I'll add here please read your material safety data sheet according to your country's regulation when you buy the caustic material and take what's there and keep the instructions. You'll have to know that caustic soda is not a toy. If it touches your skin it causes burns. If it touches your eyes it can cause blindness instantly. But if you are handling it with care you will have no problem. We all learn to handle fire, but we don't put our hand in fire. It's the same with caustic. If you know how to handle it, it's no problem.

When you use it protect your body, so don't be barefoot, or in open sandals. Use shoes and use clothing that can save your skin in case you accidentally drop a tool which splashes a little of the caustic liquid on you. And it's very good to have at hand a bucket full of water, just plain water, and if you have any drops on the floor or on your body parts or your clothes or your furniture, just use plenty of water to wash it out. Don't use any vinegar or add acid to neutralise it because if you have a little caustic on your skin and you add some acetic acid like vinegar you can cause, besides a caustic burn, also an acid burn. So just wash thoroughly with water every spill or drop. And work in a quiet place without children or pets nearby, and not be surrounded by people who will distract your attention. Take care and caustic is safe in that case.

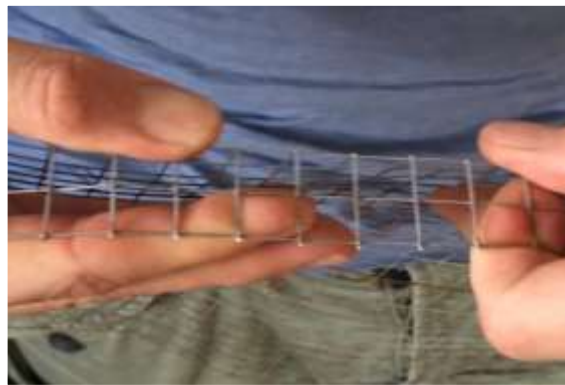
Step 1 - Making the wire mesh



In the preparation, first of all, you have your plastic box. And now we need to create your chicken wire base that will fit into the bottom of your plastic box.



All that one has to do is to take some chicken wire and cut it to the size of whatever plastic box that you do have.



And just bend over the edges of your mesh, creating a one-and-a-half or two centimetre folded edge.

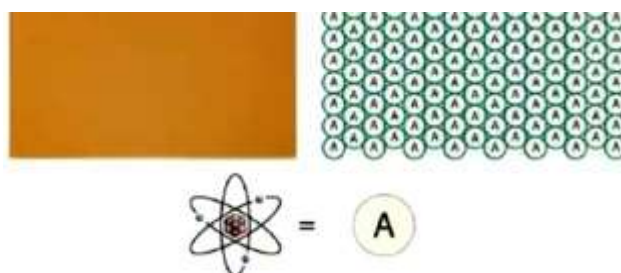


Just repeat this process on the other sides so eventually you've just folded down all four sides. You're creating a nice box shape, and then that will fit into the bottom of your plastic container. This is very easy to do, no problems.

Step 2 – Preparing your copper plates



At this stage you're just dealing with the copper in a matter state, and so your atoms are all very tightly packed together.

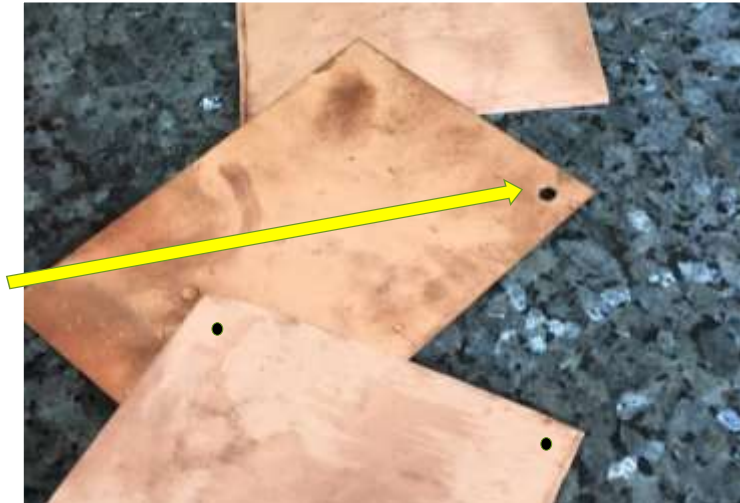


I'll add here a simple idea that you can keep in your mind: When you do a Nano-layering of the copper it's different than other kinds of Nano-layering that are used in industry where they do deposition by atomic layers of chemical vapours and so on when they add something like paint or other surface. Here we make the layers from the copper itself. So it's a kind of process like when you make popcorn. You have tightly-packed atoms and then you add an extra energy which makes these atoms pop up in a different shape and different structure. It's literally like when you make popcorn.

That's why we try and use the term '**Nano-layering**' and not '**Nano-coating**' because the term Nano-coating then implies that we're putting something on top of the copper. But we're not.

If you have your copper, your plate, your wire coils, which you're wanting to Nano-layer, even your spinning devices that you have – you need to make sure that they are the highest quality and purity of copper. Cut them to size that's going to fit into your box with the lid closed.

Your plate thickness can vary. If you want to make your plates to create your GANS materials, they can vary from a 0.5 millimetre to 3.0 millimetres. The thickness is not important.



There are two options to prepare your plates. The first one, if you do have some tools at home, is to drill a small little hole on each of two corners of your plates, and these holes can be used to hold your plates during the Nano-layering process, as well as when you want to use them to produce some GANS material.



The other option is to just cut a little into your plates and then bend over small little edges, and then you can use these little edges to hang your plates. So whichever is going to be easier for you? Either option works very, very well.



You need to clean your copper surface very well. Get rid of the oxidation, your oil from your fingerprints. It will interfere with the Nano-layers. So one has to be very careful and clean your material before you place them into the box.

Step 3 Nano-Layering Process

So now we've done all our preparation, we can begin creating our Nano-layers.

A basic standard formula that one can use – forty grams of sodium hydroxide with ten grams of potassium hydroxide per one thousand millilitres of water.

- 40g of NaOH
- 10g KOH
- 1000 ml water

The presence of potassium is very important, but when you buy your caustic soda, sometimes you find in its chemical composition that it has, let's say, ninety percent sodium hydroxide and the rest is something else. If accidentally it contains potassium its fine. But usually we add potassium. You can use potassium hydroxide or you can use a potassium salt like potassium chloride, which you can get from any chemist or pharmacist. It's a product which is called "No Salt" in some countries, or "Salt without Sodium". It's a dietary supplement, so it's easy to buy from any pharmacy. If you cannot get potassium hydroxide due to local restrictions, in that case you can add some quantity of potassium chloride.

Potassium is important because a tiny part of the potassium in nature, 120 parts per million, is made up of the isotope of potassium 40, isotope 40 of the potassium, which manifests the so-called "beta decay" so we can eat some kind of ionising radiation. It's a very, very minute ray, which makes it not harmful at all, so some radiation is needed even for life to be able to function. But those little sparks are giving that extra energy which is needed for this popcorn process to occur. So you can use, let's say, ten percent of potassium or thirty percent of potassium. It's up to you. The recipe here was found to be something that works in most cases. So you can use a little more or a little less. You can experiment. But if you use this ratio, your success will be ninety-nine percent guaranteed.

The importance of Potassium in terms of the Nano-layering.

Look at how cells divide in the body. The division of cells needs some radioactive material, which is usually cobalt. And you can get it in the form of cobalamine, and other names. It's vitamin B-12. Vitamin B-12 is usually produced in the guts of Man or animals and so on. So your body produces it naturally. That vitamin B-12 is needed for the cells to be able to divide.

A similar vitamin is folic acid, or vitamin B-9 in other terms, which has the same action but is much stronger and is needed for the foetus to grow.

Mr. Keshe has studied for a long time how to find such a material, which is slightly, slightly radioactive to give that little scintillation for this easy Nano-coating process, and he found potassium. Potassium in nature contains a very tiny amount of the isotope potassium 40, which is unstable. It makes a big difference between success and failure to have some potassium present. If you have no source of potassium, you can extract it from ashes, from vegetation ashes, from ashes of hardwood. You can just collect some ashes from a wood fire. You can sift it by a sieve, and then you put it in water and leave it for a couple of days. Then you filter it. You can boil it to evaporate some water, and you get potassium carbonate or potassium ash, which is called 'potash'. That contains potassium and you can add that to the caustic soda. It initiates a nuclear process. This is nuclear science, don't forget that, so potassium hydroxide *enhances* Nano-coating.

Just recently I saw a Knowledge Seeker from Eastern Europe, who tried to make a new Nano-coating, but he got a very pure sodium hydroxide but he didn't add any potassium. And surprisingly he didn't succeed.



So, you've got your mix [of dry sodium hydroxide and potassium], and you can just sprinkle that onto the bottom of your plastic container, evenly to cover the whole bottom.



You can then place your plates onto the mesh at the bottom of your container. And just another point on placing your plates: If you can it would be preferable to position your plates at a slight angle or even vertically. Because, if the plates are laid flat, then you may observe the pattern of the mesh imprinted on the plates. It just depends on your size container and how you like to do it, but ideally you'd want your plates to be standing upright.



Place your lid onto the box, leaving a small opening, and then pour boiling water into the container. Now this is where you need to do a bit of preparation, in that you need to know, once you have your plate in there, how much water you need to place in there to make sure that your plates are fully covered with the water. It's best to just measure beforehand with cold water to see how much water you need. And if you need two or two-and-a-half litres of water, then you can calculate and measure how much caustic soda you need. So that all depends on the size of your box and the size of your parts that you're wanting to Nano-layer.



Here you have to be very careful when you pour your boiling water into your container because you're going to get hot steam from your hot water as well as from the caustic. At this stage be very careful, and also not to breathe any of the fumes coming off.

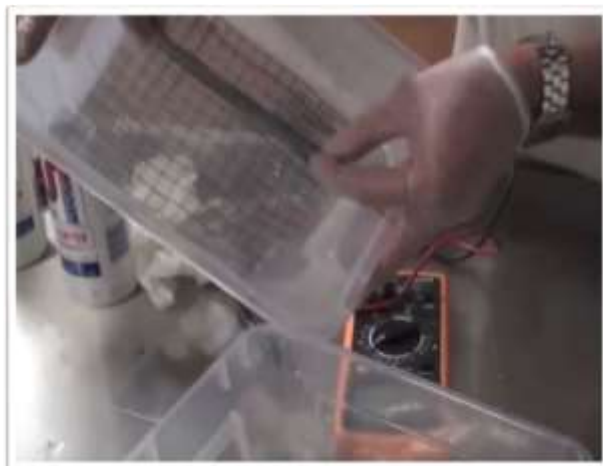


Pour enough boiling water in there so that you're covering your copper plates completely, and then you immediately close the box with the lid and put a weight on the top – even if you just put your kettle on there [not one that is hot on the bottom] – just so that you can trap that steam in your box.

You can also drill a hole in the lid, so you can close the lid, get it secure, and then use a funnel to pour the boiling water through the hole then it's much easier to cover than dealing with the whole top of the container.

Once you've closed your lid you leave that box for forty-eight hours. Do not open the lid during that time, because what you've created in that box is a caustic environment around your copper.

Step 4 Drying / Curing Process



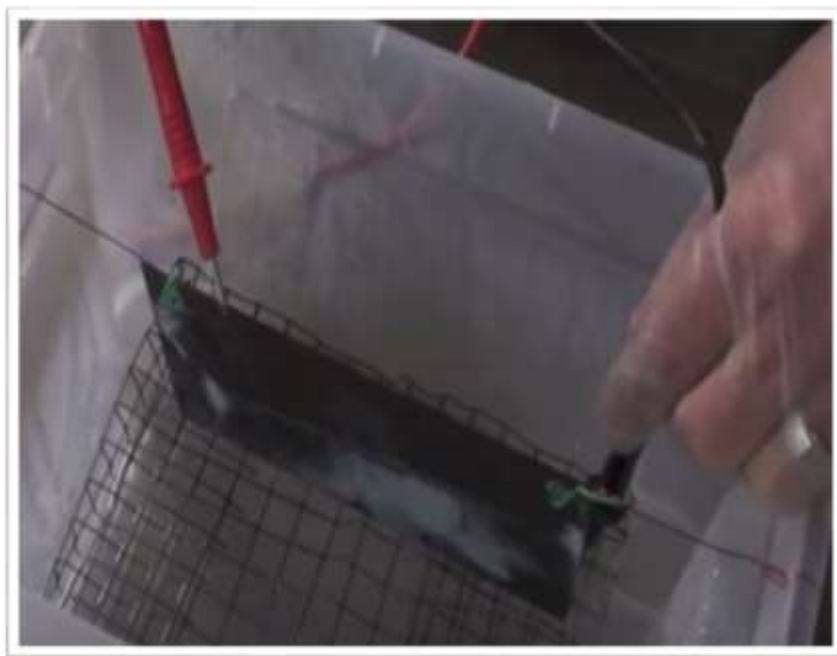
The next step is your drying. After your forty-eight hours, if you're just doing one single plate it is a lot easier. You need to remove most of your caustic water from your box. If you do have many plates there that you're trying to Nano-layer, then you have to try and remove that caustic with a syringe, because you don't want to disturb or fiddle with those plates because you'll be starting to damage any of the Nano-layers which might be starting to form.



Always leave just a small amount of the liquid caustic in the box. You don't pour everything out, you just leave a small little amount that sits at the bottom of the box. Both ways are correct. You can do like in the picture, just pour out the caustic liquid from the box, but it is much easier if you can manage to use a pipe to siphon out the water without disturbing the entire box. If you have a fish tank or have a friend who has a fish tank, you know how you take out the water from the fish tank without turning the whole thing upside-down. If it's a smallish plastic tube you can just fill that with water and then when you stick one end into the caustic with your finger on the other end, you get automatic siphon without having to suck it. You have your box with caustic on the table and you have, for instance, a bucket under the table as the recipient of the liquid caustic you pull out. That's especially important when you are Nano-layering many plates together. When you do this on a bigger scale it's much easier

than carefully removing out so many pieces one-by-one into another box and so on. The moment when you take out the water usually your copper plates stay shiny metal colour while they are covered with caustic. And immediately when you remove the solution of caustic their colour starts to change – in minutes.

Your Nano-layers begin forming straightaway. It's very important to be careful how you handle them.



During this early stage, once you've drained out your caustic liquid, you need to take a multi-meter and drain the voltage from the plates. You're best just to take two of your electrodes on opposite diagonal corners of each plate and just hold for a couple of seconds. You do this every six hours in your first twenty-four hours after you've drained your caustic liquid. This is important because if you don't do this, the atoms that, from the previous process, form a kind of gas around the plate will start to combine with the oxygen and will create those layers mainly made of copper oxide. They create crystalline structures exactly like the ice flowers form on your window when it is very cold outside, when it is frost outside and you have some moisture inside of a heated house. And you see how random shapes of crystals are creating, but if you wish to have a surface that will have a good energy flow, it's good to give a direction from one end to the other.

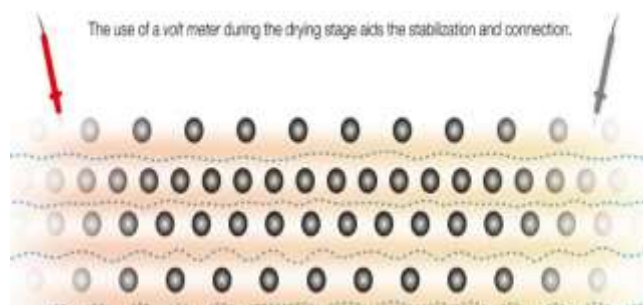
Some voltage appears instantly on the surface of these wet parts – plates or wires or coils or whatever you want to Nano-layer – and when you unite with the wires of the voltmeter, you just allow that voltage to create a current through the measuring instrument and also through the surface of the plate in the space between the two contact points of your probes. And that very tiny current – of the order a Nanoamps or milliamps – will be enough to give an alignment of the crystalline structure that is beginning to be formed into the new layers. It's a procedure to align these layers.

Use DC and millivolts range A multi-meter has a positive and negative. Is it important each time you drain to use the same?

When you measure resistance, ohms – which you don't do here – in that case the multi-meter applies the voltage of its internal battery and always the red is positive and the black is negative. But if you use the voltmeter [selection of the multi-meter] it doesn't matter, because the display will show plus or minus voltage, so it acts just very passively. It doesn't give a voltage from inside, it just creates a current between the voltage which you have already on the plate. So, it really doesn't matter how you put positive and negative here.

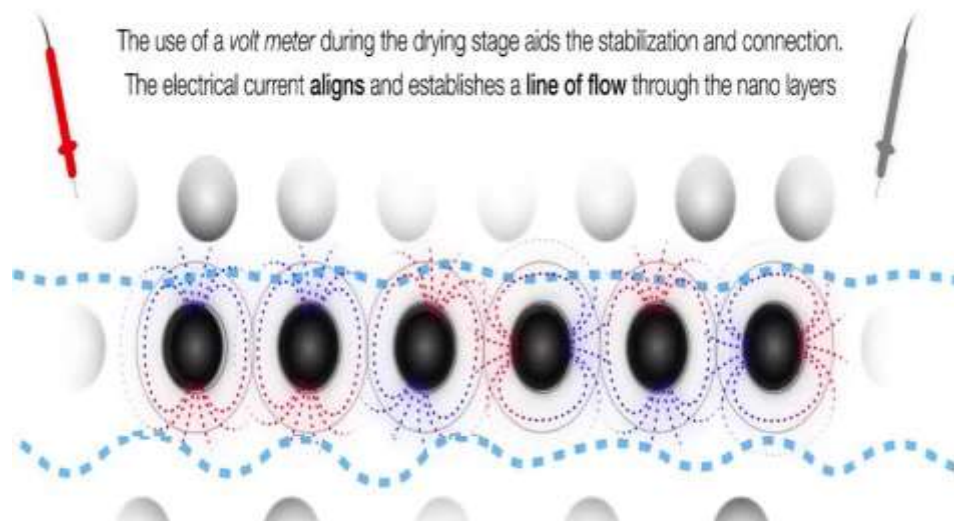


The display in one direction will show, let's say, 65.9 volts, or in the other direction –65.9, like in the picture. It's the draining part that's important, not putting power into the plate. Some people think they have to put power into it somehow. Voltmeter doesn't put any power. If you would use the ohmmeter, that would put power, but if you put power then the layers that are already formed will just puff off. That's the way Mr. Keshe explained it at one point, that the layers tend to be too fluffy if there's power put into it. If you *drained* the layers of power then it tends to tighten up the Nano-layers, and it makes them more effective.



So, if you have no voltmeter you can just use a set of wires and a resistor of high value, some megohms, in-between, that will do the same job, but it's better that you see and you are conscious about something happening there. So that's why it's better to use a voltmeter. But in case of limited technical possibilities you can still make a Nano-coating without a voltmeter, just with a piece of wire and put in the middle, in series, something of high resistance. If there is no resistor of ten megohms for instance, you just can cut a stem from a branch of a tree and take off its bark and you just twist the wires at its bare ends, and it would still be that limitation of current. So, you can improvise for whatever you don't have. People noticed on the voltmeter that often on the first couple of drains get a lot of action. And then towards the latter parts, the sixth or the seventh drainage, there is hardly any

register on the meter. It depends how much moisture you have around. If it's completely dry probably the voltage that you observe will be less and less.

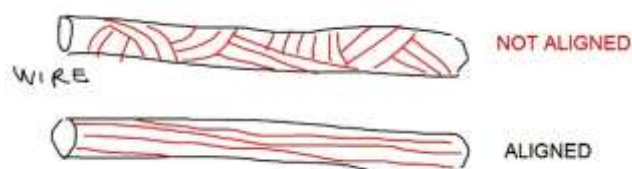


Here's just a nice illustration – just a clip from the video – of the importance of stabilising and realigning your Nano-layers that are forming.

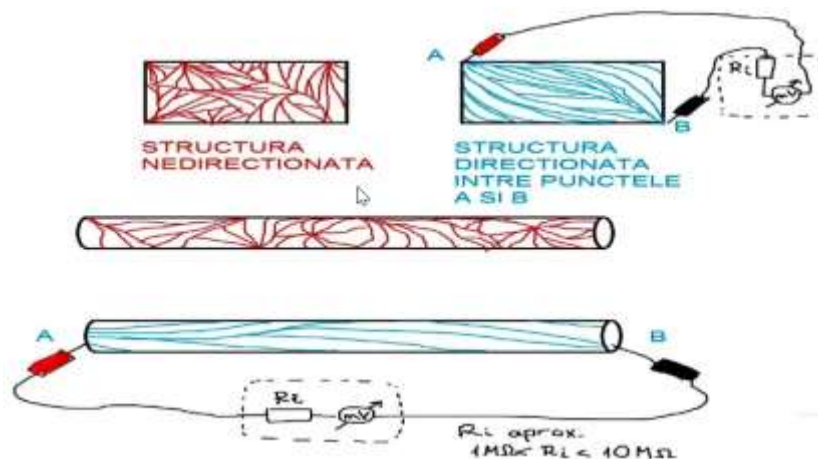
Please watch the following video which explains how the nano-layers are formed.

https://www.youtube.com/watch?v=U7YG-vMm_q8&list=PLpCKWzA-bp9uSJfFndoaAcr5PCCRBBbIci&index=16

What you want to do is to align and establish a line of flow through the Nano-layers, and we do this with the two electrodes so we can dictate the flow of our Nano-layers that we are wanting.

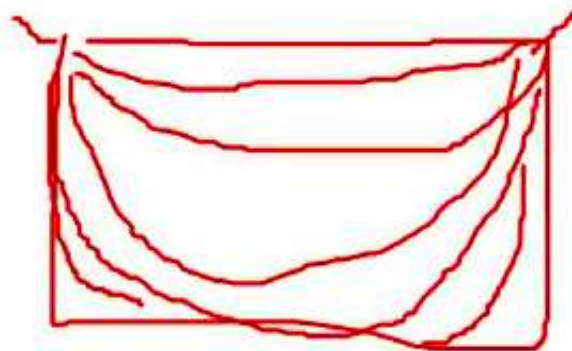


These pictures above are showing you what our Nano-layers would look like if we don't align wire. They'd be all over the place so that we wouldn't get a very good flow coming through. Whereas, if we do align them we're forming a nice flow, a nice even flow of the Nano-layers so that when we do pass current through it, it goes through so much better. A Superconductor of the magnetic field flow.



And the same with the top picture of the plates. The red one is if we don't align, and then the blue one is if we do align – at the two diagonally opposite ends – we're just creating or dictating that flow that we are wanting. And this becomes very important when you're producing the coils of MaGrav units, because you want to dictate the flow of the electricity through your coils. So, it's very important to know which way your electricity is going to be flowing through, in which direction.

So, when we're doing plates, the positions of the electrodes of the meter, there in the structure it's showing the opposite corners. One video somebody did the upper and the mesh, or the two upper corners.

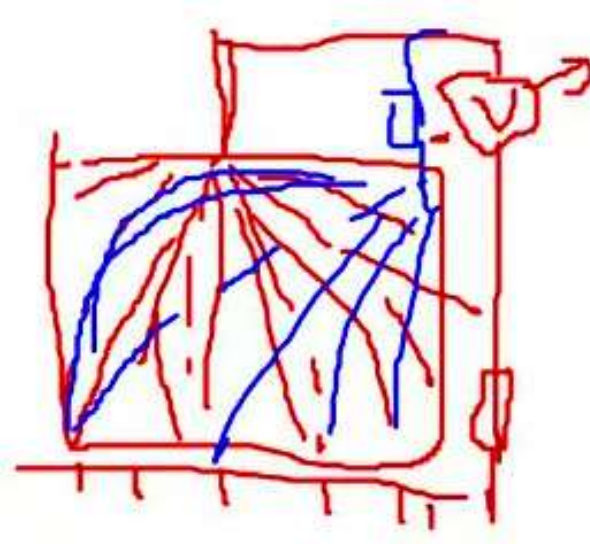


If you put on the upper corners, in that case this will be the way of your flow of electric current. You get a more uniform surface if you use the longest track. In the case of a square plate it will be the [opposite] corners. In case of a wire it will be always the two ends.

What happens if you use the upper corner, like you have there, but the black is on the chicken-wire mesh. Here we have the mesh. If you apply one pole of the voltmeter here [at the top], and you have the other pole, in that case you will have probably something with this direction.

Well, if the plate is touching the mesh, will that influence no matter where you put the electrodes?

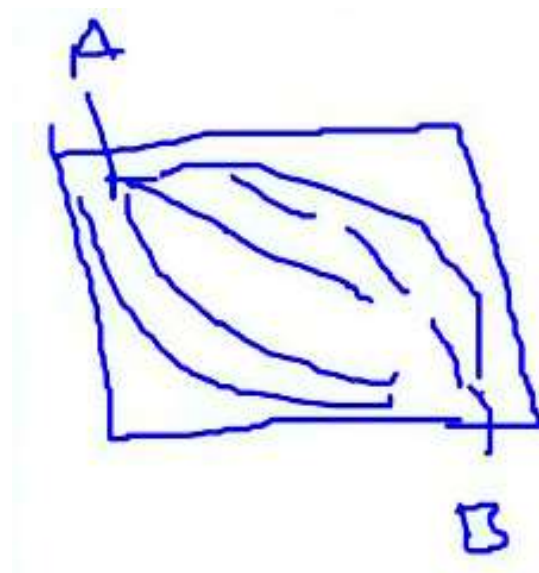
It matters where you put it. Let me draw with blue:



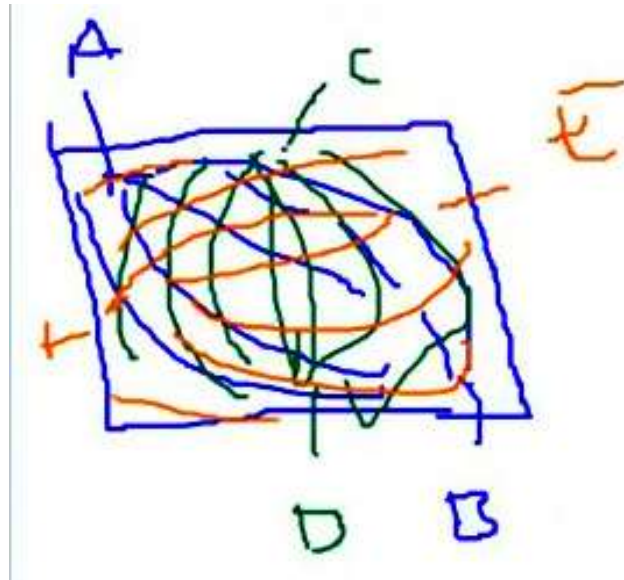
If you put this electrode here, in that case you will get something like this.

The thing is, one of the techniques that used to be used originally was to move the electrode over the whole plate in various spots and just leave it on for a few seconds in each spot. So, your removing the charge from the plate, you're taking the charge off, you're draining. You want to *drain* the plate as much as possible, as well as align the fields like this.

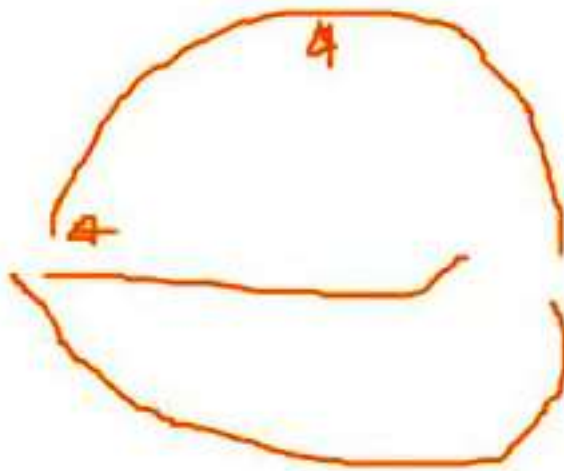
That has a special purpose in the case that you want to make GANS production, you make a higher spectrum range of the fields. So if you put your voltmeter at different random positions you make one layer like this when you use these points A and B:



After four or five hours you use these two points, C and D, for instance, the next layers will be aligned in this way. So we'll have a mixture of layers of various directions. When you make the next one with these E and F, then it will come aligned in this way:



You'll have a mixture of directions of the layers, which is very good if you want to make a higher spectrum of fields in the case of production of GANS. But in the case of energy production, sometimes it's better to just have a uniform flow. If you want to make a Nano-coating for an internal part of a hemisphere for instance, in that case you apply here just once and once at the edge and you apply it only once.



And you leave it untouched for the future, because there you may have the purpose to have a very uniform layer. It depends on your purpose. No method is wrong, but different methods have different effects and different applications and purposes. But for the beginning it's good to understand the process itself, and later you can learn some more complex things. It's like when you learn to play a piano, first you learn musical scales, later you learn harmonies, and later you will start to play melodies, and later you start to compose your own music.

Here also in the process of learning will get a similar gradient. So first you learn how to make a Nano-coating and then how to use that Nano-coating, and then later you go to create your own symphonies with your richer knowledge. For the beginning it's good to keep it simple for people who are new, to not get confused with too much information at once.

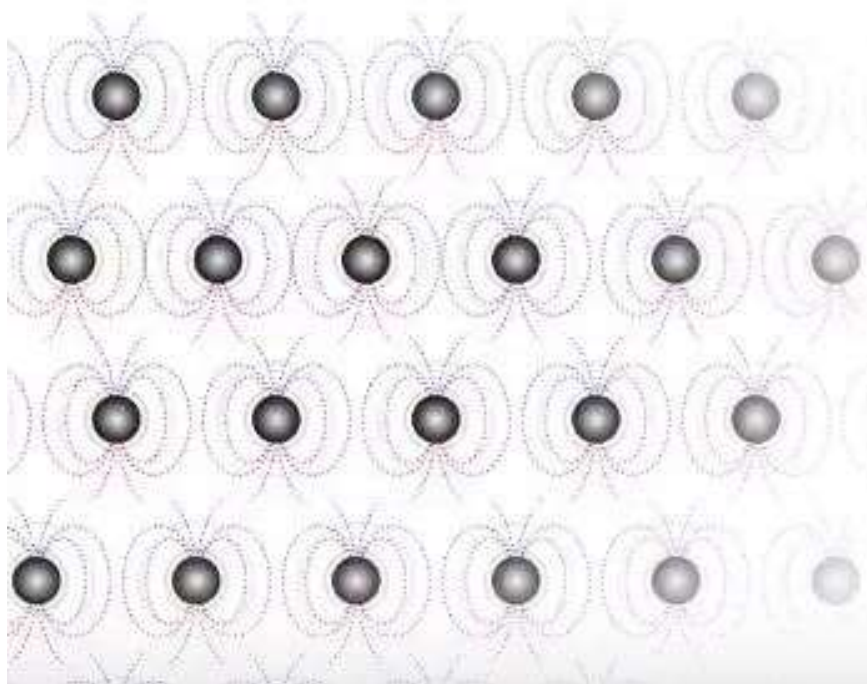
It does show you the importance of what you're trying to create and for what purpose, how that really comes into play when you want to create complex and intricate devices. You want to dictate flow, we need to understand why and how. It's important that learning is not just by listening or reading or watching, but also by doing. After you watch it's very much advisable also to do your own practical applications and experiments, and you will actually learn from what you will do and what you will observe while doing, and the knowledge adds up.

Even sometimes you learn from your mistakes. I tend to learn more from my mistakes than when I get it right. So that's why you have to practice, you have to play around and do it, because you learn from the whole process. As I say, there are no mistakes, it's just done differently, and you learn a lot from that. So, don't be shy when you're playing.

I would like to say there are no failures. Learning is achieved by a succession of successful and unsuccessful trials, or experiments, or life-experiences. If you do something and the result and the result is as you wish, in that case you repeat that. If you do something and the result is not what you wish, then that in that case you don't repeat it that way. I used to say, "You cannot learn to swim without swallowing some water."

Once you've completed your draining, always put the lid back on. Never leave the lid open. So, we drain the voltage to polarise the surface and dictate the direction of the formation of your Nano-structures. And you can do this, in different positions, or you keep one position where you're putting your electrodes all the time. And then you keep your lid closed for a minimum of two weeks. Let me quote – I don't remember who said this first, but somebody from the first Knowledge Seekers – "Growing Nano-layers is like growing mushrooms. You need a little patience and care."

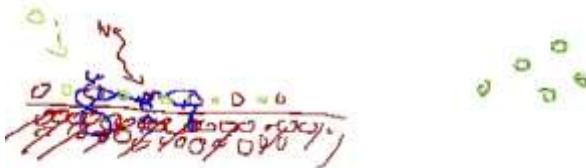
So, what is happening during these two weeks? During this drying process, the Nano-particles will be finding their position in respect to each other. You are draining and you are taking a certain direction, but because they are still wet, they are still moving, they're still positioning. They're like two little magnets, they've got to find their position in relation to each other, and that's basically what is happening during this process.



How often do you drain during that two-week period? It depends on your purpose. If you want to make plates for making GANS, you can repeat that four or five times each day. If you want to make something for energy, to my knowledge – please correct me if I'm wrong – you do it once and never more. I'd like to add something here, just a little small drawing here:



If you have here the surface of your copper, and you have the atoms in tight metallic bond, which you have underneath, then you make your first layer some small particles, atoms, are getting an extra energy due to the action of the hot sodium. Like when you melt a piece of ice or a piece of metal, first it goes from solid to liquid, then it goes into the form of gas. So here also we have something like a gas, which is separated from the original plate, but you have a field interaction between these free copper atoms in the gas state and the atoms inside. So, you have here an attraction, you have a repulsion, and also you have an attraction and repulsion between each. They find a new position. They want to go a bit farther apart because they have extra energy, but they cannot go too far because of the gravitational forces, the attractive forces.



This gets completed by some oxygen also coming in and becoming part of your structure. The copper atoms create some gaps and holes in-between where the oxygen from the water can fit into. So that's how you get the structure of oxygen atoms and copper atoms.



And then you have such a bond in-between, and still they will be some spacing in-between. This is to understand how this layering is created. Something important: Once you have your first layer here created, now the forces between this first layer and what's inside will pull out more atoms from underneath, and it will pop up another layer. And this created layer

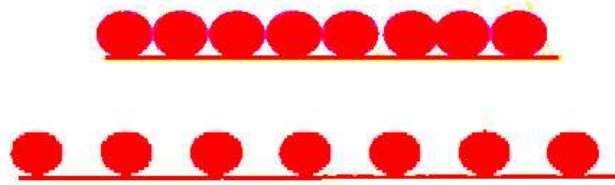
also exerts some force over the atoms that are inside the copper and they will pop up more and more and more layers. So, it's literally like when you make popcorn.



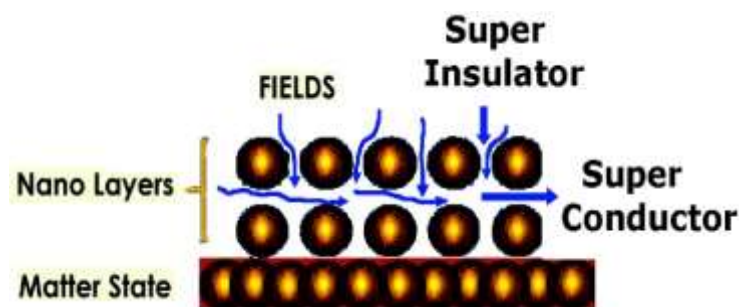
When you see your Nano-layered surface of a black colour, it means you already have not two, not three, but tens of thousands of layers of Nano-dimension, atomic thickness. So you get about forty, fifty thousand layers when the colour appears black. When you don't see a colour change it doesn't mean you have no Nano-layers. You do have, but they are so thin that they are transparent. In order to have such a thick layering you need that time, the minimum two weeks, and sometimes two months. The more time you let these layers get conditioned or created, you have a more stable Nano-layer. You will see the difference when you're creating GANS and put them into the salty water. You will see that some layers will not last too long, and some will last for a very long time. It depends how you created them. So for a good job you have to afford time. We have to really take our time in creating these layers.



After two weeks, or even ideally two months, one can then open the container lid leaving a small opening. This is important, because that change from the caustic environment in the container and the outside environment needs to be gradual. When you want to stop the process, you need to do this at least two or three days beforehand just by opening that lid slightly and allowing that gradual change of condition from one environment to another.



What we've done is through the heat we've taken your copper and created Nano-layers. And so that black that we create is ten, twenty, thirty thousand layers of little balls on top of each other. So those are all individual layers that we have created.



To understand what you have created and how to use the layers, in the direction [blue horizontal arrow] you have a superconductor because with your voltage-draining you've positioned your Nano-particles in a certain direction so that the flow is greater. And in the perpendicular direction [down-pointing arrow] you've created that super-insulator. So that's why it's so important to take time in creating your Nano-layers. It's not something that can be done in a week-end. And especially for coils, always hang them, never leave them flat, even when you're storing your coils for later use always keep them hanging. Because even laying them down the weight of that copper is going to damage the Nano-layers on the bottom side. You see how delicate these layers are, so always hang when you're storing.



Preferably don't touch them like in the photo. This was done for the sake of the photograph. When you do the process you just use something to hook up the ends of the coils and you leave it hanging free without touching anything.

Washing

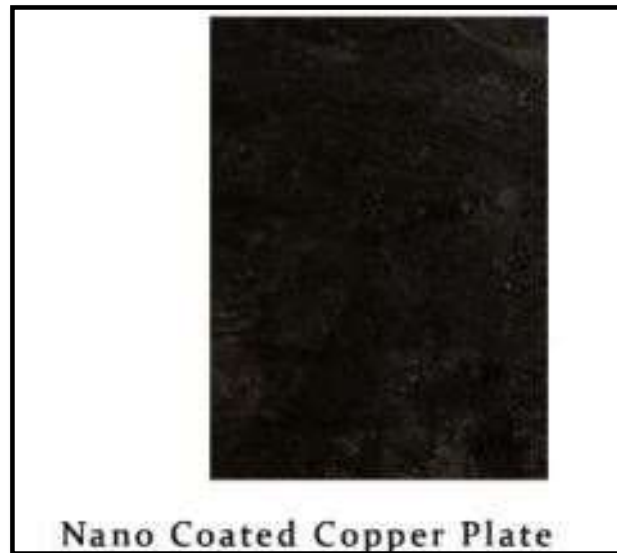
When you've finished this process, just carefully hold the plates by the corners and just rinse them gently with some distilled water. And please, in particular when you're going to be using them for GANS production, wash all that caustic off all your plates before using them in that GANS production. Otherwise you're going to introduce that caustic into your GANS. They must be washed thoroughly before use.

Do not wash them with a cloth or anything. Don't touch it, you just rinse it. The water will not damage the layers, it's very soft.

Some people have suggested putting just a little bit of citric acid into the distilled water. It's possible, but only a very tiny amount, and not in the last water. It's always good to rinse it in three or four different waters, one after the other. The water actually dilutes the salts, or caustic soda, which is on the surface. If you wash it in one water that water will already be a much diluted solution of the caustic. You can rinse it first in clean distilled water, then in a second container you can add a few drops of lemon juice, for instance, to be sure you neutralise that caustic. But when you neutralise it also it's producing some salts and you want to get rid of those salts as well, so it has to be followed by rinsing in another clean water, and again with another.

So how many times do you rinse your plates in the water? Eventually you can measure it by titration if you want to be very technical. But you can just simply follow your intuition and understand that, if you wash, say, five plates in three litres of water it will be cleaner water than if you wash fifty plates in the same quantity of water. Just rinse it and rinse and rinse it. You have probably no running distilled water because it's expensive, but you can put three or four trays with distilled water and rinse in first, rinse in second, rinse in third, rinse in fourth, and then put it into the container where you want to store them.

If you have ever seen a photo laboratory where they are developing the photographs – as was in fashion in the seventies, and in the eighties, now it is less because we use digital photography – but if you had seen such a lab you have seen that they put the exposed photographic paper into a chemical, then they wash it, they put it in a second chemical, they wash it, they rinse it again, they put it into the third, and then they put it into a final wash to remove all the leftovers of the chemical. So here we use a similar technique. You have some trays or bowls or boxes with clean water, and you rinse it first, rinse it second, rinse it third, eventually in the fourth, and you can deem that clean enough. You put it in and you move it back and forth for two or three times to let the water flow on it. And then you take it out and put it into the final box where you store.



Do you rinse in distilled water or filtered water? It depends how you filter it, because some water filters for drinking water first filter out all the dissolved solids and chemicals, and later they add some salts to make a better taste for the water. You don't want those salts to get into your Nano-coating. So distilled water is the best, or de-ionised or de-mineralised will be okay. It depends on what kind of filter you have.

Question. Well, we're using a Berkey water filter and not adding anything back into it, and our water is well water so its clean water except probably it has minerals in it. You change the conditions with whatever you add to it. Whatever substances, elements, you add to the process, those will be present again. So that's why it's good to have a separation and purification at the end. Furthermore, when you create these Nano-layers you create a surface of the order of magnitude of dimension of the atoms, which has a lot of gaps and holes. And if you have caustic on it, those gaps and holes will be filled with sodium or the hydroxyl radical or whatever, and the results will be unpredictable. Also note that it is important not to use your hands, even with gloves on, or a cloth or something like that to wipe the plates off or try to get the caustic off that way, but to just dip it or rinse it in the distilled water.

One thing to consider is that during this entire process of forming the Nano-layers, the environment of where you're making this Nano-coating process affects the Nano-layers, so much so that even your intentions affect the Nano-layers, your thoughts, your intentions, your reacting with the plates and everything, create a different energy.

Storage



It is very important not to damage your layers that you have spent two months building and then just to throw them in a box. They have to be handled carefully and stored carefully until you need them. Try to store them upright, and keep your coils hanging at all times, because they are delicate as the little feathers shown above.

Things Not To Do



This is a picture of my Nano-layering right in the beginning. Please don't do what I did. You want to Nano-coat as many things as possible all at the same time, [but not too many] because now you are putting things on top of each other, so you're damaging the Nano-layers. So please do not do what I have done and what many of us have done.



And you need to make sure that everything is separate and not touching each other, because you're just damaging the Nano-layers.

There is an instructional video. If you go to the Keshe foundation Spaceship Institute YouTube Channel. If you go to Instructional Videos playlist, and there you will see a video of the Nano-layering. There is also information on the Kf Wiki.

It's quite an involved process. You need to have yourself prepared and have everything on hand before you even begin to start this process and safety is very, very paramount.

Summary

Summary of Nano Layering of Copper

- Preparation - Box, Plates, Safety
- Hot Caustic Process – 2 Days
- Drying – First 24Hrs align the layers with multimeter
- Drying – Leave minimum 2 weeks to 2 months with lid on.
- Drying – Last 3 days leave a small opening with the lid
- Washing – Plates **MUST** be rinsed with distilled water.
- Storage – upright or hanging

Your intention in this whole process is extremely important, as it will have an effect on your end result. Intention creates its own field, which is added to your creation, so put your best intention into all that you do.

Questions

So, in the immersion method, it's the exposure to the caustic and then my question – and I know you partially answered this – is: After the first layers form and they coat the copper, how do the subsequent layers form? I know you talked about the field-forces of the Nano-layers. Is that what is causing it? Because when the first Nano-layers form there is no more exposure directly to the caustic environment of the underlying copper.

You still have a little moisture of caustic, you still have some sodium present, and you have the first layers, which have been popped out. And that makes a pulling force, and it gives also some extra energy to the atoms that are still into the metallic bond. So more layers of the atoms can get freed. So these layers are growing from the bottom up, and not growing as a layer on the surface and then another external layer, but the first layer will pop higher and then the second will follow it, then the third later will follow it from underneath.

A nice animation would help very much to understand that process

How about reusing your caustic?

You can reuse it for different purposes. For instance you can keep the old cold caustic and use this used caustic for pre-treatment for cleaning of the new copper parts which are going to be Nano-coated. You can put the copper parts, plates or coils or whatever, for a couple of hours into that cold caustic just before they do the Nano-coating. So it doesn't make a Nano-coating, but that caustic will clean up all the fat and grease that will be accidentally on the surfaces of the copper. Like you use an oven cleaner or a barbecue cleaner, which is basically a caustic solution, maybe sodium hydroxide or a mixture of sodium and potassium hydroxides. It's for household cleaning and it dissolves all the fat and grease. It's the same as cold caustic, and it can be used to clean your future copper parts that are going to be Nano-coated. You just put them into the cold caustic, you leave for a couple of hours, and immediately from there you put them into the hot caustic process.

Question on the container. You were using plastic, but there is the option of stainless steel or glass. The best is to use a plastic which is heat-resistant. And one of these plastics is the polypropylene, PP. You'll find that usually on the bottom of the boxes with the recycling symbol, the triangle, with the number 5, if I remember well. But 5 is for a group of plastics. Usually the letters PP are added there, which means polypropylene. The boxes that are good for food, for putting food into a microwave for instance, or for storing food, are usually made of polypropylene, but you have to check. Polypropylene starts changing its shape at about 120 centigrade, and it will melt at, let's say, 140 centigrade. You have to understand, when you add hot water, boiling water to the caustic, that will increase its temperature suddenly, depending on the concentration of the caustic it can rise up to 105, 110 or 120, or 130 centigrade. You see in the material data safety sheet for caustic it always says never dissolve it in hot water, always in cold water, because it will produce extra heat. So that's for safety. But here we *need* that extra heat. That extra heat is part of the process. So you use a plastic that withstands that heat. Polypropylene is fine.

For storing the caustic also you have to take care to store it into containers or bottles that withstand the caustic. One is polypropylene, and the other is HDPE, high-density polyethylene. Never store it in PET bottles like the coke bottles or soda bottles, because in time the caustic will find its way to leak out, and you don't want the caustic spilled. You can endanger your feet or the pets or children.

What is the best way to preserve the Nano-coated plates? In order to store them for long-term, always close in plastic boxes with a little moisture. Water. Not alcohol.

You can, for instance, put a few drops or one millilitre of water on a paper tissue and put it in the same box, and that will maintain some moisture inside. That would be one of the ways to keep moisture enclosed in the box.