Making CO2/ZnO Gans

There are two basic methods for producing CO2 & ZnO Ganses.

Traditional Method
There is the traditional method which involves placing a nanocoated copper plate and a zinc plate into a salt solution. These are normally connected with an LED, a resistor will also work, in order to reduce the current flowing between the plates.
If a wire is connected directly across the plates there would be a current flow of ~ 100mA between them, depending on set up. This is a result of the electrolytic potential difference between copper and zinc in a salt solution, which is ~.7V.
At such a current we would get a high proportion of zinc oxide in the Gans mix.
Generally I've found that the amount of zinc oxide in the mixture is proportional to the current between the plates. The main function of the LED or resistance is to reduce the current to a small value so that we get a high CO2/ZnO ratio.
On the other hand if one were to disconnect the plates completely we would get pure CO2 forming over a period of time. With no current there is no zinc oxide forming.

Carbon Rod Method
I prefer the second method, the carbon rod method introduced by Arvis Aliepa. I find it to be faster, simpler and not as messy as the plate method.
He discovered that if the nanocoated plate is replaced by a pure graphite rod it produces similar effects. The explanation would seem to be that pure graphite has similar properties to the nanocoating; graphite is known to form very thin layers, in the form of graphene, that exhibit superconducting properties among other things, similar to the CuO nanocoating that forms on the copper plate. Plus the graphite rod provides a source of carbon which would help to explain why this method helps to speed up CO2 production.
From my experience the two methods produce Ganses that look and feel the same. Dr Keshe has confirmed that the graphite rod method produces CO2 Gans.

The procedure for generating CO2 from the carbon rod method is a little different to the traditional method.
The main difference is the absence of copper. The Cu/Zn plate combination provides the electrolytic voltage difference that drives the current with the plate method. Since we don’t have a Cu plate it means that we need a power supply to get a significant current happening with the Carbon rod method.
Even without the copper there is a small voltage difference between the carbon rod and the zinc plate, in the millivolt range.
The graphite must generate that in a similar way to the nanocoating on the

copper plate.
We know that a nanocoated copper plate and a plain copper plate in a salt solution, such as for CUO2 Gans production, gives a voltage of around 50mV between the plates. This has to be due to the nanocoating because the electrolytic potential difference between the same metals will always be zero. As a result of this small voltage difference it means that if we were to connect the zinc plate and carbon rod with a wire there would be a small current produced, below 1mA usually. In which case one would get pretty pure CO2 but it would take some time to get significant amounts.
It's worth noting that this method needs current to produce CO2 Gans.
If there is no connection between the carbon rod and the zinc plate no CO2 is produced.

The big advantage of the carbon rod method is that it speeds up CO2 production as well as making it a lot simpler. Most probably the Carbon from the rod combines with the dissolved O2 to form CO2 which is not available for the traditional method.
We can use a current of around 10 mA and still produce close to pure CO2 if done properly.
Using a current of 10 mA with the nanocoated copper plate will give you a larger proportion of zinc oxide Gans in the mixture.
As with the traditional method the amount of zinc oxide is influenced by the current but interestingly not to the same extent as it is for the 2 plate method.

Two Phases
Unlike the traditional method however there is another factor which influences CO2 production.
After a certain time the CO2 production stops, or reduces significantly, and a white ZnO layer starts forming above the darker CO2 layer.
The two layers are quite distinct, see the video (https://youtu.be/Y3QDG0i7Unw) for an example of this.
Using a 50mA current the white phase appears after ~6-7hrs, at 10mA after a few days and at 200mA after ~2hrs.
We know that the white layer must contain a large amount of Zn oxide because after it starts forming one can see the Zn plate being consumed noticeably, whereas prior to the transition there is little sign of that happening.
Also we see the ZnO Gans flakes coming from the Zn plate after the transition.
One can even select the approximate CO2/ZnO ratio in the Gans by choosing to stop the experiment when the zinc oxide layer gets big enough for the desired ratios.
One thing that affects when the white phase appears is cleaning of the rod.
A white layer builds up on the rod over time. I have found that if the rod is cleaned regularly it delays the onset of the ZnO phase.
However even with the cleaning of the rod the white phase will appear eventually.

For the 50mA case I clean the rod every 2 hours or so, for the 10mA case every ~ 6 hours.
To produce close to pure CO_2 I found it best to keep below 50mA.
I use vinegar to clean the rods, 3 to 5 minutes in the solution seems to do the job well.

Air Bubbler

The other thing that affects the CO_2 production is the availability of oxygen. Depending on the current the dissolved CO_2 and O_2 will eventually run low and slow CO_2 production. Using a bubbler gives at least twice as much CO_2 Gans, all else being equal.
The fish tank bubbler works well for this.

Salt Solution

With regard to the salt solution it was made up by mixing normal pure salt with filtered water in a 3% salt solution.
By pure salt I mean just the normal white salt that one can buy in stores that hasn't had anything added to it like iodine.
People use various other salts, such as natural sea salt; and I'm sure they will have their own unique properties but for the purposes of producing pure Ganses I prefer to stick with a simple formula for now.
The salt concentration will affect the current flowing for a particular voltage but since we are controlling the current by varying the voltage and/or the resistance the salt concentration is not particularly important.
One thing that the salt concentration does influence is the Amino Acid layer on the top. I found that the higher the salt concentration the more Amino Acids one gets.

Power Circuit

The current can be controlled by adjusting the voltage on the power supply.
I also include a resistance in the circuit, as shown in the circuit diagram in the video, which helps keep a stable current. You don't really need it, one can keep adjusting the voltage to maintain a steady current, but the resistance makes it simpler in that the current won't go above certain level (as given by the i<v/r formula) so if the salt solution or other factors change the current won't change much.
One can also use batteries or a charger as power supply, the downside is that you have much less control of the current. In which case a variable resistor can be useful which allows one to vary the current while keeping the voltage constant.
The other thing I have included in the circuit is the current meter which is needed in this case because my power supply doesn't have a high enough accuracy in displaying the current. If your power supply shows current in the 10 milliamp range, most don't, then you don't need that.
The current meter I use is available for $10-$20 on eBay. Resistors are also cheap on eBay.

Video: www.youtube.com/watch?v=Y3QDG0i7Unw

UPDATE

Further testing suggests that the CO_2 Gans mentioned in the video is actually $ZnCO_3$ Gans. This also applies to the 'CO_2' created using the standard nano coated Cu plate method. This is consistent with other people's work.

My Own Experiments:

With the 10 mA CO_2 sample I dried the Gans and weighed it (0.9g). I also measured the weight of the Zn plate before (19.2g) and after (18.8g) the experiment. The weights were consistent with the Gans being $ZnCO_3$ and not just CO_2.
Another test I did was to add hydrochloric acid to the dry Gans. It is well-known that metal carbonates give off CO_2 gas according to the equation:
$ZnCO_3 + 2HCl = ZnCl_2 + H_2O + CO_2$
I did this with my dry samples and all of them produced gas bubbles. This includes samples created using .01 mA, 1 mA, 10 mA currents employing the carbon stick method, but also Gans created using the standard nano coated Cu plate method at very low current (LED style).

Similar Results from Others:

(1) This is consistent with the findings of Edoardo Scaggiante, who is a chemist that used infrared spectroscopy to analyse the CO_2 samples created using the standard nano coated Cu plate method. He found that the Gans was predominantly $ZnCO_3$ (hydrated) with perhaps some ZnOH and/or ZnO in the mix.
He tested at 4%, 10% and 20% NaCl solutions and all gave the same basic result.
(2) This is also consistent with the work of Joshua Thomas who took a CO_2 production kit bought from Keshe manufacturing and had detailed infrared spectroscopy tests done in a lab and found the main component to be $ZnCO_3$. (www.youtube.com/watch?v=qvIRZ9V27JQ)

Conclusions:

Given all that evidence there is no doubt in my mind that we are dealing with $ZnCO_3$ units rather than separate CO_2 ones.
Having said all that the material still produces unusual effects and health benefits. My own health has been improved noticeably by using this for health purposes. Whether CO_2 or $ZnCO_3$ it still has an effect, as has also been reported by others, just not in the way that Keshe thinks.