The Journal of Immaterial Science

MISCOMMUNICATION

Received 1st April 20
Revised 14th November 20
Accepted 1st August 21
DOIOU: 10.9999.9999.9999

Novel Magnesium-Based Chlorin for Efficient Catalytic Reduction of CO_2

Leevy Greens,[a] Hazel Plant [b] and Dick Wood*[c]

Abstract: Utilisation of CO_2 has historically been done via catalytic conversion into methane or syngas. Such a process involves the use of inorganic and potentially environmental-unfriendly metals while the products are also not biodegradable. Much safer alternatives are proposed in this paper. It is discovered that the introduction of trace Mg^{2+} into a solution of Chlorin A (Figure 1) results in a catalyst capable of reducing CO_2 into various polyalcohols, the latter being energy sources for many organisms.

Chlorin A (Figure 1) was discovered by accident when Dick Wood decided to find out what was inside of Hazel Plant's green hipster drink. This compound was particularly difficult to isolate from the various other substances in solution, but after 3 years of attempting to recrystallise a crude sample in water, during which an aliquot was diluted in distilled water and left to stand, we have managed to obtain 3.22 mg of crystals, and that was probably enough for an X-ray diffraction or two. Interestingly, even though chlorins are supposed to be coloured, the crystals were colourless, and were even salty to the taste.[1] Subsequent tests were carried out with the crude mixture because crystals were rather difficult to obtain and that the original crystals were somehow not recoverable. Nevertheless, having given the entire solution to our trusty lab tech Peter, we were able to get an NMR spectrum that suggests the presence of a chlorin[2].

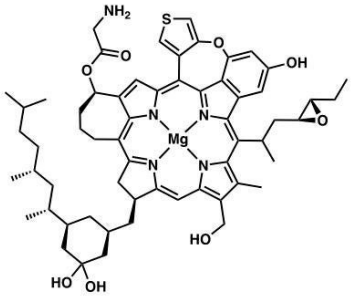

Figure 1 Structure of Chlorin A.

Experimental

315 mL of the hipster drink ChloroFill™ was decanted to get rid of the sugar precipitates. Trace magnesium was then introduced into the drink as Greens burped in the direction of the beaker after taking exactly 3 antacid pills. 15 mL of the resultant mixture was then immediately transferred to a 50 mL beaker and heated on a hotplate set to 373 K. An undergrad moving some dry ice to another lab was ordered to stop and blow into the beaker as hard as possible (and with his mask on) to introduce CO_2 into our reaction mixture for 1 hour (Scheme 1). We also decided to have an UV lamp shine on the mixture just in case we need to initiate some weird radical reactions.

Scheme 1: Human blowing into beaker

Throughout the course of one hour, the colour of the mixture turned from green to brown and then black, and the solution thickened to the consistency of bitumen. At the end of an hour of blowing, the CO_2 source reported dizziness and shortness of breath. Despite his protest that it was because of all the fumes he was inhaling, he was sent to the nearest clinic for a COVID test while the beaker was left to cool to room temperature. With the content of the beaker now smelling like a mixture of tar and burnt caramel, a solvent extraction with 50:50 water/ethanol was attempted, and traces of sucrose was detected in the extract. Most of the solution remained in the form of a black goo. Spectroscopy revealed that the black goo was in fact mostly just elemental carbon. A second run was attempted after we changed the source of CO_2 (as the previous source was still waiting for his swab test results) to a female student whose breath smelled better. A few pieces of four-leaf clover were also added into the beaker as bad luck was clearly the reason for the low yield.

No further experiments were conducted in fear of never being able to replicate our results. We are however certain that similar or better yields could be reported if we were to conduct our experiment again.

Results

Despite our catalyst unexpectedly reducing all the CO_2 to elemental carbon in the first run, clovers as luck charms worked well for the second. Bubbles formed after approximately 2 minutes and exclusively on the upper surfaces of the clover leaves, likely due to the presence of nucleation sites. Even though the heating was interrupted after 3 minutes due to a power outage, 0.334 g of sucrose was still isolated from the product mixture. In addition, 5.8 mL of oxygen gas at 1.0072 bar was collected over the course of 3 hours. We are of course

a. Department of Chemistry, Mey Dahp College of Mathematics and the Sciences
b. Currently unemployed because she took chemistry in college
c. Department of Biology, Le Git University

1. Not that a stupid undergrad put any of it in his mouth or anything like that.
2. Or at least, that's what Peter said, since we have forgotten how to read the NMR spectrum. Peter won a gold medal in the IChO 17 years ago, just trust him, bro.

DOIOU: 10.9999.9999.9999

WILLEY

goodenough.immaterial.science@gmail.com
https://www.facebook.com/J.Immat.Sci
r/ImmaterialScience twitter: @JImmatSci

aware that the leaves may in fact affect our experiments by producing sugar of its own, but everyone knows that glucose is the sugar formed and there is no way that so much sugar was formed in such a short period of time from the leaves.

Conclusions

We boiled a green sugary drink to carbon. Then we left some leaves in a different sample the same drink to yield more sugar than the leaves could possibly produce, together with some bit of oxygen that had to come from the stuff that we discovered.

About the Authors

Dr Leevy Greens is a very attractive woman in her late 30s, having divorced a year prior to the submission of this paper she is now looking for attractive young men in her area. Hazel Plant is an undergraduate looking for a job, she was paid with Legos most of the time as Dr Greens and Dr Wood were doing something else on the sofa of Dr Greens' house. Dr Wood was bullied in his youth for having a phallic name, is now an example of nominative determinism.

Author Contributions

Hazel Plant and the lab tech Peter did all the work in the paper, while Dr Greens was peer-reviewed by the editors of the journal to get the paper published. Dr Wood recruited unwilling undergraduates to the project by threatening them with the prospect of inadvertently spilling correction fluid over their exam scripts.

Conflicts of Interest

Dr Wood is not too happy about Dr Greens' relationship with the publishers, Hazel Plant is not too happy with her salary, and Dr Greens blames the CO_2 source for her positive test for a certain strain of lentivirus.

Acknowledgements

We would like to thank Realle Parson[1] and the Sumwan brothers[2] for writing exciting books for us to read while the experiments were being conducted by someone other than us, as well as the lovely people at the local coffeehouse, who were nice enough to offer us discounts, which we really needed as we were sort of broke.

References

1. Baker, C.; *How to Make Cupcakes*. Realle Parson, 1912.
2. Sumwan, A., Sumwan, T: Medicinae Medicandi. *Alchemy,* 1777 **186**, 156–157.