



The Chemical Consultant

Association of Consulting Chemists and Chemical Engineers, Inc.

Scientific, Engineering, Business & Management Consultants

Volume 33-1
January—March 2021

FUTURE MEETINGS

All members are invited to attend.

April 13, 2021

Council GTM Meeting—7 pm

May 7

Dr. Robert Pribush

"From Sputnik to Smart Phones"

May 14

Council GTM Meeting—7 pm

ACC&CE Officers & Leaders

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The Association of Consulting Chemists & Chemical Engineers (ACC&CE) is a network of senior-level consultants with a broad range of functional expertise and many years of experience in the chemical and allied industries.

The purposes of the organization are:

To offer prospective clients a "clearing house" which they can use to find the most qualified consultants, whatever their particular problem may be.

To furnish support to its members as they conduct their consulting practices.

This newsletter is intended to support those purposes as well as to educate prospective new members and prospective client organizations about ACC&CE, and how we can be most helpful to them.

The ACC&CE has an interactive website – <https://chemconsult.org> that allows prospective clients either to input their problem or to search for those consultants most skilled in their area of concern.

IN THIS ISSUE

This newsletter begins with a letter from our President, Richard Goodman. It appears on page 2 .

On page 4, there is a letter from your outgoing Editor. Starting with the second issue in 2021 (Volume 33-2 in June), Koki Doshi will take over as Editor. Please address all comments, suggestions and new content to her at koki.msa@gmail.com.

On page 6, there is an article from Marvin De Tar, who has taken on the responsibility for improving our Linked In activities, which we hope will lead to more CHIs and more new members. Please support him in this important effort.

Pages 7 and 8 contain a description by David Morse, a relatively new member of his first CHI experience.

Joe Porcelli, Editor (retired)

LETTER FROM THE PRESIDENT

Richard M. Goodman, (Certificate #747), President of ACC&CE

The ACC&CE continues along an excellent path characterized by greater involvement by the members, particularly new members, and solid finances. Steve Duerr, Treasurer, continues to report a record cash balance (at least for last 5 years), fully paid ads for the newsletter and almost perfect dues payments. In fact, at our last meeting the council has decided to invest significant funds to make a most positive presence if and when the next Chem Show comes to the Javits Center, New York. We will be sure to feature a lively booth and a truly professionally presented program to attendees highlighting the opportunities in working with or joining ACC&CE. When the Chem Show operators announce the next Chem Show we will launch a Chem Show Committee to determine the best approach to building our presence.

Marvin DeTar has launched an active LinkedIn committee. He has hired an excellent consultant, Kathy Smith and together with Marvin and several other members, esp. Joe Porcelli, Charlie Leonard, Steve Duerr, Koki Doshi and David Manuta, they have come up with a plan to improve our presence on LinkedIn (**see Marvin's article in this Newsletter.**)

Al Sagarese, Vice President and Program Chair continues to offer excellent programs which have attracted larger audiences, e.g. ~ 14 attendees versus 10 or less in recent years.

Charlie Leonard maintains our website presence and will coordinate the LinkedIn changes flawlessly into our website. Dick Schauer keeps the Membership Committee active and screening new candidates for membership.

Arthur Finkle has joined the council filling the last vacancy (**see Council listings**) after his appointment at last council meeting; His has been an active voice at the council meeting over the last several months. (Arthur's bio appeared in the April-June 2020 issue of the Newsletter.)

David Manuta, immediate past president, has continued his active work for ACC&CE in his current position on the council. Speaking of the Council, they also confirmed the interpretation of the Constitutional provision which allows eligibility for membership by consultants who work for large Chemical Consulting firms.

Finally, I want to give a special shout out to Joe Porcelli and Koki Doshi for their excellent work in publishing this Newsletter.

Thanks for reading.

Richard M. Goodman, President



Dr. David M. Manuta, FAIC, President
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LETTER FROM THE EDITOR

Dr. Joseph V. Porcelli (Certificate #906)

As I write this, the Covid-19 pandemic continues to be a major story, but finally there are other important developments to report on as well. Regarding the pandemic, there are developments which appear to be creating a more positive attitude, at least in the US, where the levels of the various parameters being followed are declining, despite recent relaxations of restrictions threatening a fourth peak. In particular, what appear to be irresponsible actions, including the spring break in Florida, is worrisome. Three effective vaccinations are rapidly protecting many vulnerable people in the US, with Europe unfortunately lagging due to a troubled introduction of a fourth vaccine. I hope that the next issue of this newsletter, expected in late June, will move foreword.

As I reported in the last newsletter, ACC&CE had its annual election for officers and council in October. As a result of our new Vice-President Al Sagarese vacating his previous role as one of our Councilors, an opening was created and has now been filled by Arthur Finkle, who volunteered at the last GTM meeting. A list of the current Councilors is below:

Hoffman (908) and Byrne (921)	[expires 2021]
Wetzel (943) and Art Finkle (981)	[expires 2022]
Manuta (882) and DeTar (910)	[expires 2023]

Please note the expansion of efforts on using LinkedIn to promote our organization, led by Marvin DeTar (See page 6). We hope that many of our members will contribute to this effort.

Starting with the next issue of the Newsletter, the editing position will be taken over by Koki Doshi. Please submit your comments, questions and articles to her at:

koki.msa@gmail.com

Sincerely, Joe Porcelli

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Can LinkedIn help the ACC&CE to obtain new members and additional CHI's?

Marvin V. DeTar Certificate # 910

LinkedIn is a website ostensibly for professionals to communicate with other professionals. Most of the communication is done by posting information on a regular basis to “followers”. (A “follower” is one who has toggled on a LinkedIn selection to receive all posts from a website.) The more activity there is on a particular LinkedIn webpage, the more an internal algorithm in the background inside LinkedIn that counts visits then places the webpage favorably above other sites. So the key to the marketing one may derive from the LinkedIn site depends upon the number of posts placed on the site and the activity it then draws.

Two ACC&CE sites were set up about 10 years ago; a Group site which any Linked In member (presumably interested in chemical consulting) could join, and a corporate business site. Over the intervening years the activities languished except for a short period when a number of ACC&CE members were invited to join the group site. The sites became all but invisible to the LinkedIn audience. Even worse, one individual had been using the ACC&CE Group site as a personal blog post – an individual not associated with the ACC&CE.

I proposed to improve the LinkedIn website to attempt to attract additional candidates for ACC&CE members and inquiries (CHI's). In February the project was given a budget of \$300.00. Kathy Smith of Lakenetwork.net was hired to spruce up the sites. She became an administrator along with five ACC&CE members who showed interest in helping develop the sites. After several meetings a consensus was achieved. The Group site would be taken down and the corporate LinkedIn site would be developed further. And as a consequence of the new activity started after the Feb. 9th Board Meeting; 22 unique visitors have clicked onto the ACC&CE LinkedIn site and has resulted in one CHI. The site currently has 9 “followers” who will receive all of the postings made on the site.

How best to use the LinkedIn website with the least amount of effort is simply to use the LinkedIn site to draw eyes and direct the visitors to the <https://chemconsult.org> website. Postings can include upcoming talks, newsletter articles, even from earlier editions, information about who the ACC&CE would like to have as members and where to get help with inquiries. Adopting a regular schedule of posting activity and using a “cut and paste” technique to place content into the LinkedIn site should be all that is needed. To raise the website's visibility it is helpful if other members of the Association actively “like” the postings made on the LinkedIn site or copy the article and post it on their own LinkedIn site.

The LinkedIn site will be an ongoing project – to determine how effectively it brings in new members and provides additional CHI's to the chemconsult.org website. All ACC&CE members are encouraged to provide suggestions that could improve the LinkedIn site to achieve its goals. As a part of the duties of a newly elected councilor, I have taken on this project.

Marvin V. DeTar

CHI-136 CBD Blending—My First Project after joining ACC&CE

David Morse Certificate # 978

I took on ACC&CE website inquiry CHI-136 from a small retailer of Cannabinoid (CBD) products. CBD is the active ingredient in the hemp plant (*Cannabis Sativa*) that may assist in relieving certain human conditions such as anxiety and insomnia but does not induce a 'high'. He was looking for assistance in setting up in-house blending of CBD resin into an edible oil carrier, specifically asked about developing a process and controlling that process. I volunteered to talk to the inquirer because this was a field that I wanted to begin work in and I felt there was a decent chance I could fulfill his needs. Up until this time he was having the blending of his retail products done by a toller. I have completed the project. My point in this short report is to enlighten any of you who are or are thinking of becoming a CBD user with some of my findings.

My client's formulas are now based on sound calculations with accurate units conversion as the industry standard reporting units are a mix of weight and volume (milligrams of CBD/milliliter of sellable products [tincture]) so component specific gravity and volume upon blending turn out to be important. These are now understood by the client and he has the calculations in EXCEL so he can type in the variables and come up with accurate formulas.

After working with the client of CHI-136, I can tell you that he uses certified labs to analyze the incoming CBD resin and to confirm concentration in their sellable products (tinctures) though I am distressed at the variability in lab results. I was quite disappointed to the variation in lab results when we sent the same batch out to 3 different labs and got results that, in my opinion, varied by too much. Liquid Chromatography (LC) is the analytical tool used to measure CBD and its analogs (CBC, CBG, CBDV, CBN) along with $\Delta 9$ THC [tetrahydrocannabinol which is the psychoactive ingredient, gives you the "high", in *cannabis indica*]). The sample size was 3 batches and all three batches were sent to 3 labs. We did not pay for multiple runs of the same sample at any one lab so there is plenty of room for a reproducibility and accuracy study though that was not in the scope of work for this project. Inconsistent lab results is a weak point in the ability to trust the CBD tincture market. I have suggested to my client that sending the same sample multiple times to one lab is another piece of data on the continuum of trusting the results from a given lab. I don't believe the client has paid for this experiment to be done. He has chosen a lab to which he will use for his incoming raw material assay and to confirm the assay of his finished, sellable products (tinctures).

(Continued on next page)

CHI-136 CBD Blending (Continued)

We have also tackled terpene addition to a CBD tincture under my client's belief terpenes may be synergistic to CBD effects. Terpenes are chemically defined as having more than 1 isoprene unit (C_5H_8)_n. There are thousands of variations on this basic chemical theme but suffice it to say that terpenes are the flavor and aroma compounds in plants. You might have heard of Pinene, Limonene, or Myrcene. I assisted with understanding various research reports on identifying & quantifying terpenes, which terpenes were likely naturally occurring in the hemp plant prior to the many breedings that Cannabis sativa has been through, built the algebraic formulas for blending purchased terpenes and again, interpreting lab analysis of the purity of the purchased terpenes. Independent certified lab results have again shown variation reinforcing my concern that analytical results for assay is an area of weakness in the CBD/ Δ^9 THC (Cannabis Sativa/Indica) markets. GC/MS (Gas Chromatography/mass spectrometer) is the standard method for terpenes. I am not an expert in LC or GC/MS but my exposure to both through my career suggest they should be able to be used in a quantitative way and there should be more consistency lab to lab. Maybe some of you have a better insight into the lab to lab variation that we experienced?

My client's blending and testing process is now documented. He does use a HEPA clean space (I do not know the rating of the filter he is using) to do the blending and packaging though in no way would this be considered pharma grade cleanliness or having proper document control. I do not make judgement on the effectiveness of CBD. I can say with confidence that my client, who's website is www.cocbd.com (Essentials, LLC), wants to provide a safe product and is taking steps to not harm their customers with contaminants. Also, what the label says is in the bottle is what is in the bottle (as much as we trust the certified labs...).

David Morse

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