DCG PARTNERSHIP I, LTD.
The Premier Manufacturer of Calibration Standards for the Hydrocarbon and Biofuels Industries
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STANDARD ISSUE

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Premier and Customer Calibration standards

AND

DCG School of Chromatography

EMPLOYEE SPOTLIGHT
Cherl with Cylinder Control

Cherl is the DCG's Cylinder Control Specialist and has been with DCG since 2005. Those of you who have spoken with Cherl understand she prides herself in handling all cylinder related questions, including, categorizing location of rental cylinders or customer owned cylinders, cylinder rental invoicing and research, as well as purchasing cylinders.

Prior to joining DCG, Cherl worked for 19 years with the same Houston based company in apartment management. She moved her way up to management after playing significant roles in various positions with the same company, which included customer service, bookkeeping, and accounting. One of the things we admire most about Cherl is that she is very detail oriented. She credits much of her training in that area to her years in the apartment industry.

She is very proud her three children, and the light of her life is grandchild, Raina.

She enjoys being outdoors fishing or spoiling her horse, but most of her spare time she spends with Raina.

DCG Partnership Receives 2009 SBCA Best of Business Award

The Small Business Commerce Association (SBCA) is pleased to announce that DCG Partnership 1 Limited has been selected for the 2009 Best of Business Award in the Standards and calibrating equipment, laboratory category.

The SBCA Best of Business Award Program recognizes the best of small businesses throughout the country. Using consumer feedback and other research, the SBCA identifies companies that they believe have demonstrated what makes small businesses a vital part of the American economy. The selection committee chooses the award winners from nominees based off information taken from monthly surveys administered by the SBCA, a review of consumer rankings, and other consumer reports. The SBCA says award winners are a valuable asset to their community and exemplify what makes small businesses great.

American Chemical Society

Spring 2010— Meeting in San Francisco

Working the table for the Division of Petroleum Chemistry

Pictured are:

Dady Dadyburuor (West Virginia University)
Neal Byington (Dept. of Homeland Security)
John Schabron (Western Research Institute)
Roy Rodriguez (DCG Partnership)
Elise Fox (Savannah River National Laboratory)

Our history of an easy standard…

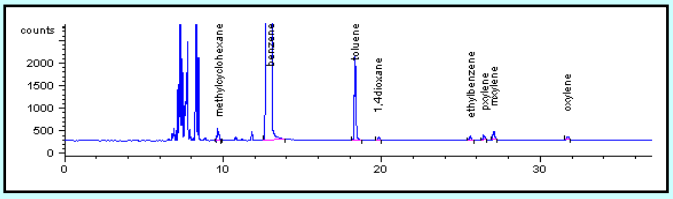
By: Alejandro Gonzalez, Research Chemist

Abridged Edition part 2 of 3

In the previous issue we explained the need of the preparation of a set of standards for a new chromatographic standard method for the ASTM International D16 Committee on Aromatic Hydrocarbons and Related Chemicals. The standards needed various compositions in the following ranges:

Methylcyclohexane	2 - 2000 ppm wt
Toluene	2 - 2000 ppm wt
1,4 - Dioxane	5 - 2000 ppm wt
Ethylbenzene	2 - 2000 ppm wt
p - Xylene	2 - 2000 ppm wt
m - Xylene	2 - 2000 ppm wt
o - Xylene	2 - 2000 ppm wt
Benzene	balance

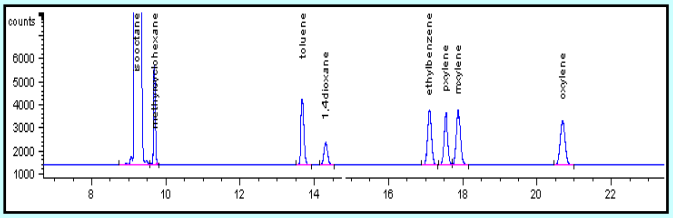
Checking the purity of our raw products, we found that the contaminants in our benzene were exactly the same components we needed to add, logically (fig. 1).



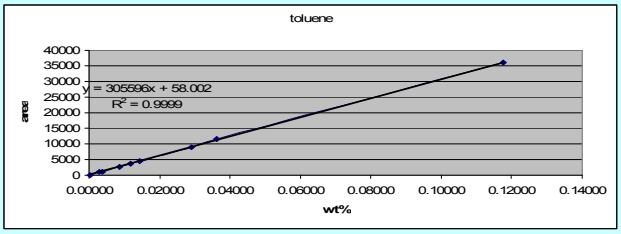
Since the market doesn't offer a higher quality of benzene, we had to purify our own in order to get a clean matrix for our standard. We explain already how we choose a recrystalization process which gave us an apparently very clean benzene. But still we need to prove ourselves this benzene is clean enough.

One way was to make the 'same standard' in a different matrix, a matrix free of these contaminants.

We tested several possible solvents since we needed a peak that did not interfere in our chromatogram for the 'will be method' - and we found some really clean isooctane, suitable for this purpose (fig. 2).



We then made the set of standards using this clean isooctane. The calibration curves looked pretty good, figure 3



shows the example of the toluene:

We can now compare this curves with what we got from the cleaned benzene, but the method is meant to be used for purity of benzene. By using a different matrix means density corrections and others sources of possible errors. So we need yet another method to compare with this too set of standards.

In the next issue (see part 3 of 3), we will explain the last method we used, and see our data match all together.

EXCITEMENT AT DCG

We are all proud and excited to announce the up and coming completion of our newest expansion.

Watch for our July/August issue for a glimpse of our new high profile laboratory!

DCG: Meet and Greet & School Schedule

May:

DCG School of Gas Chromatography: 5/10 – 5/14

DCG School of Method Development: 5/17 – 5/21

ISHM, Oklahoma City, OK 5/10-5/14

June:

DCG School of Gas Chromatography 6/7 – 6/11

DCG School of Method Development 6/14 – 6/18

ASTM, Kansas City, MO 6/28 – 7/2

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