



# NEWSLETTER

Oklahoma Section

American Chemical Society

Volume 15 Number 2

<http://membership.acs.org/O/Oklahoma/>

April 1, 2009

## Culinary Spectroscopy, Part 13: Better Cooking Through Chemistry.

Thursday – April 23, 2009  
Platt College North OKC Campus  
2727 W Memorial Road OKC  
405.749.2433

**Dr. Gerald John DeMenna**

CHEM-CHEK Labs/Fun-Science Academics  
212 Manida Street  
Bronx NY 10474

Cooking is nothing more than Organic Reaction Chemistry using Reagents that are edible [usually], and can involve pH Adjustment [acidity / alkalinity], Neutralization [elimination], Esterification [structure change], Dehydration (loss of water), Pyrolysis (charring/carmelization), Condensation [new molecules], Distillation [loss of volatiles], ad infinitum! All of these will cause "new" compounds to be synthesized! The composition of "Foods" in general are based on the final products of these Synthetic Reactions, and the "quality" is a function of the yield of the desired End-Product. Proteins, Carbohydrates and Fats are the Raw Materials; but there are MILLIONS of By-Products that determine the MANY Flavors & Aromas! Classic Chefs; like Julia Child, James Beard and even Emeril Lagasse; use their SENSES [smell, taste, sight] to gauge to quality of their cooking. For others, there are more Scientific ways to accurately measure the effects of Cooking processes. These series of Lectures describes the multitude of Analytical Techniques to help develop and control the quality of a Meal! Author denies any claims of induced indigestion. .... 

[Reservation Information on Page 2] 

**Schedule:**

6:00 PM – 7:00 PM Social Hour Platt College North OKC Campus  
2727 W Memorial Road  
Oklahoma City OK

7:00 PM – 8:00 PM Meal Platt College North OKC Campus  
This is the student run restaurant at the culinary school  
Memorial & N May – just West of Quail Springs Mall  
<http://www.plattcollege.org/campuses/okc-north-campus/>

8:00 PM – 9:00 PM Speaker: Dr. Jerry DeMenna

Dinner Menu: Mediterranean style chicken breast topped with sautéed mushrooms, tomatoes and basil and melted mozzarella cheese, pasta w/ basil & red bell pepper pesto focaccia bread, house salad, mini chocolate torte [a house specialty], coffee, tea.

Cost: \$25.00-ACS Member; \$5.00-ACS Student Affiliate.

**Reservation Deadline:** Thursday, 04/16/09 5:00 P.M. Ron Halterman 405.325.4836  
[rhalterman@ou.edu](mailto:rhalterman@ou.edu) Seating is limited to 30 – make reservations early.

## Dr. Jerry DeMenna

Born Gerald John DeMenna on a Friday the 13th. in the mid-50s, in a half-Italian, half-Jewish community in New Jersey; "Jerry" showed his affinity for the Sciences at age 5 when he and his Dad grew "Rock Candy" crystals for a science fair, then at age 9 he burned his hands with a home-made Thermite experiment--quite a transition! His culinary skills started with his paternal Grandmother, at age 8; when she shared the secret of Neapolitan Italian "Gravy" [sauce to the average American]. His multi-ethnic friendships gave him a worldly insight of other cuisine and cooking methods. Jerry enjoys his duties as a universal Scientist today; working as a Freelance Scientist and Gypsy Professor at various Schools around the Country. He studied Pharmacy & Chemistry at Rutgers University in the '70s and took a job in a County Mental Hospital for the Criminally Insane [as an Employee--not a patient], spent weekends as a junior chef in NYC to pay for school, worked on a Masters in the '80s, and his Ph.D. in Analytical Chemistry '90s. He is currently on his 4th Passport which sums up "Doctor DeMento's" high-tech academic and professional travelogue. He currently operates his private Analytical Research & Food Development Laboratory; Chem-Chek in the Bronx, NY.

## Oklahoma Section ACS – 2009 Officers

Lloyd A. Bumm – Chair  
University of Oklahoma

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Oklahoma State University

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Edward Neparko – Secretary/Newsletter Editor  
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Nathan Malmberg – Chemistry Olympiad Committee  
Oklahoma Baptist University

Cheryl Frech – Public Relations  
University of Central Oklahoma

Jim Dechter – Web Master  
University of Central Oklahoma

We recognize the following members for their milestones of service to the American Chemical Society.

For 50 years of service:

Dr. D.S. Arnold Bethany OK  
Retired – Kerr McGee

Dr. Rolan V. Decker Edmond OK  
Emeritus - Chemistry Department  
Southwestern Oklahoma State University

Dr. Tommy Karns Norman, OK  
University of Oklahoma

Dr. Edward Neparko N Route 66 Clinton OK  
Emeritus - Chemistry Department  
Southwestern Oklahoma State University

Dr. Francis J. Schmitz Norman OK  
Emeritus – Chemistry Department  
University of Oklahoma

For 60 years of service:

Mr. Keith Angus Catto Norman OK  
Retired: Halliburton and Oklahoma Geological Survey

Dr. Cedomir M. Slipeceovich Goldsby OK  
Emeritus – Chemical Engineering  
University of Oklahoma

Dr. Lowell E. Netherton Oklahoma City OK

Dr. George Rozier Waller Stillwater OK  
Emeritus - Chemistry Department  
Oklahoma State University

Oklahoma ACS Section Document Collection

If you are in possession of historical records of the Oklahoma Section of the ACS, and no longer have need of these items, please box them up and bring them to Cheryl Frech at a Section meeting or at UCO. Cheryl is collecting and sorting the material to determine what goes to the Oklahoma Historical Society and what goes to ACS. She is specifically interested in rosters, photos, and correspondence from the early years of the Section, which was founded in 1919. ACS national and regional meeting programs as well as nationally distributed materials are already archived by the society and do not need to be saved for this project. Please email Cheryl Frech at [cfrech@uco.edu](mailto:cfrech@uco.edu) to inquire about specific material.

The power is blowin' in the wind

Everett Brazil III

The Farmer Stockman March, 2009 Page 3

Selected Excerpts

In an era of depleting resources and rising energy costs, many folks living in the windy regions of the Great Plains are tapping energy blowing through their backyards to reduce their energy bills.

Small wind turbines range in sizes and can produce varying amounts of electricity, from 300 watts to 300 kilowatts, with output measured on an hourly basis.

Home power

Most wind turbines used for the average home range from 5 kW to 10 kW, explains Jeff Tullis, director of Stillwater Power in Stillwater, Oklahoma.

“A home in our area uses an average of 900 to 1,100 kW hours per month. Small wind turbines will produce 10,000kW to 15,000kW per year,” he says. “That’s almost enough to cover an average home.”

Wind turbines connect to the home’s wiring through a circuit panel that shares inputs from the local utility company in a process known as “net metering”, whereby the meter [actually the meter dial spins] can spin in either direction. Any electricity coming from the turbine and used in the home offsets power from the grid, lowering bills as utility usage goes down. However, if no power is coming from the turbine, all power will come from the grid and will be reflected on the bill.

The biggest benefit of owning a wind turbine is the money saved on electric bills, which can be anywhere from \$50 to \$250 per month, says Mike Bergey, president of Bergey Windpower Company, a Norman Oklahoma based wind turbine manufacturer.

“A wind turbine actually works like a negate appliance, one that puts power into the system instead of using it,” he says. But wind turbines can only create power and save money when the wind is blowing. If the air is still, all power comes from the grid, preventing complete independence from the power grid.

Turbines are expensive.

One disadvantage of wind turbines is the cost. They aren't cheap and can take years to pay off.

A rule of thumb is wind turbines cost from \$3,000 to \$7,000 per kW. The price actually goes down as the turbines grow in size, but the price will still be steep, Tullis says. Overall, a unit can cost as much as \$25,000 to \$35,000, and if wind in the area is good, payoff can still take as long as five years.

But for those who can afford a personal wind turbine, the payback can be good, whether it's for living a more "green" lifestyle or simply to save money on utility bills in the long run.

Everett Brazill III is a reporter for the Stillwater NewsPress  
For more information about Bergey Windpower go to: [www.bergey.com](http://www.bergey.com)

To read the complete article go to: [www.TheFarmerStockman.com](http://www.TheFarmerStockman.com)

#### Oklahoma Section Website:

Dr. James J. Dechter – is the Section webmaster. Jim is Professor of Chemistry, University of Central Oklahoma. Jim served as UCO Chemistry Department Chair from 2000-2004. Jim was also Section Chair in 2001.

To post information on the website, contact Jim. 405.974.5435. e-mail: [jdechter@ucok.edu](mailto:jdechter@ucok.edu)

The Oklahoma Section web site: <http://membership.acs.org/O/Oklahoma/>

#### Oklahoma Section ACS 2009 Calendar of Events:

Visit the Oklahoma ACS WWW site for the latest information.

<http://membership.acs.org/O/Oklahoma/>

Monday, May 11, 2009

Local Section Meeting TBA

Michael Tunick USDA, Wyndmoor PA

Chemistry of Cheese

Monday, September 14, 2009 – [Note: this date may change]

Local Section Meeting – TBA

William F. Carroll – OxyChem, Dallas TX

From Garbage To Stuff: How We Recycle Plastics

October 18 – 24, 2009

National Chemistry Week

Saturday, Afternoon - October 24, 2009

Local Section Meeting – TBA

Joe A Vinson – Professor of Chemistry, The University of Scranton, Scranton PA

Chemistry and Biochemistry of Coffee: A Healthy Beverage?

Friday, November 20, 2009

Local Section Meeting – TBA

J Keith Butler – American Ordnance LLC, Trenton TN

Military Explosives

Reprinted letters and articles as well as the editor's unsigned article[s] in this Newsletter do not necessarily reflect the views of the Oklahoma Section of the ACS.

**April 2009 Section Meeting**

**Thursday 23 April, 2009**

**Platt College North OKC Campus  
2727 W Memorial Road  
Oklahoma City OK 73044  
405.749.2433**

**Speaker: Dr. Jerry DeMenna**

*Spectroscopy: Part 13: Better Cooking Through Chemistry.*

**Oklahoma ACS 2009 Calendar Of Events – Other Side This Page .**



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Southwestern Oklahoma  
State University  
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Weatherford OK 73096-3098

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