



**Virginia Section**  
**American Chemical Society**  
Report for the 2013 Chemistry Olympiad

I want to thank all of the teachers, the proctors and the students who participated in the 2013 Local Chemistry Olympiad which has had another successful year. Eighteen (18) schools asked to participate with approximately 900 students nominated to take either the first year or the second year exam. From the 18 schools, 2 schools withdrew, 5 schools were put into the small school category with less than 600 student enrollment which included 1 governor's schools while the remaining large schools with enrollments over 600 competed in both the first and second year competitions. The results for each test are given below:

<b>Exam statistics</b> (not separated by category)	<b>First Year</b> (60 questions) 1 question removed	<b>Second Year</b> (60 questions)
Average	33.7 (48.2%)	31.4 (52.4%)
Standard deviation (raw score out of #)	8	6
Median	35	30
Max	55	56
Min	10	17
Number of Schools participating	12	11
Total Head count students	278	152

At each school, the student with the highest score within each class received a National Olympiad or Element pin. The following students were the highest score from each participating school. Many schools have more than one teacher participating, the highest student score for each teacher is listed. Teachers from each school also received a pin.

<b>School</b>	<b>First Year</b>	<b>Second Year</b>
Albemarle High School	Maegan Kirst (Oliver); Lauren Kohler (Peters); August Legallo-Malone (Gearhart)	Laura L. Ungar (Gearhart)
Battlefield High School	Justin Shaw (McLeod) and Timothy Kim (Utter)	
Clover Hill High School	Andrew Price (Ramsdell); Vanessa Kay (Schmidt) and Grace Oh (Klein)	Hayat Adawi (Klein)
Harrisonburg High School	Michael Walton (Smith)	Jonathan Ross (Smith)
James River High School	Emily Branch (Brunyansky); Killian Jackson (Lester); James Doyle and Eric Somerville (Edwards); and Samuel Dreith (Back)	Zoe Kendall (Brunyansky)
Loudoun County High School		Mason Hale (Leonard)
Monacan High School	Koby Johnson (Anzelone) and Emily Yeatts (Rice)	
Patrick Henry High School	Joseph Sandler (Buckalew) and Jonathan Scoggins (Embrey)	
Prince George High School	Caleb Togger and Trey West (Moore) and Brian Watkins II (Ely)	Matthew Schneck (Moore)
St. Stephen's & St. Agnes School	Marshall Benjamin (Oakes) and Khalil Hoque (Pelliccia)	Brett Williams (Oakes)
The Steward School	Daniel Kovach (Kovach)	Jung Heui So (Kovach)
The Governor's School at Innovation Park		Elijah Reese (England)
The Governor's School of Southside Virginia at Alberta	Brian Evans (Williams)	
Western Albemarle High School		Lillian Xu (Stutzman)
William Monroe High School	Yesaya Iman and Courtney Sigloh (Puckett)	Nathaniel March (Puckett)

Over twenty students were invited to fill 12 slots for the National Olympiad exam given on April 13, 2013 at J. Sargeant Reynolds Community College in Richmond Virginia. No more than two students can participate from each school and each student must be a U.S. Citizen or hold a green card to be eligible for the IChO study camp. Of the following students who were nominated, eleven students participated in the National Exam.

Laura Ungar and Yang Fei with Alternate Hannah Williams	Albemarle High School
Hayat Adawi* and Jenna Dickerson*	Clover Hill High School
Jonathan Ross and alternates Isaac Falk and Niel Mehta*	Harrisonburg High School
Zoe Kendall* and Shadrach Wilson*	James River High School
Mason Hale* and John Brabender* with alternate Wallace Teska	Loudoun County High School
Matthew Schneck and Taylor L. Clark*	Prince George High School
Brett Williams and Parker Lowe*	St. Stephen's & St Agnes' School
Elijah Reese, Faysal Shaikh*, Frederick Zhang*, and Caroline Gellene	The Governor's School @ Innovation Park
Lillian Xu*, William Rogers* and Alternate Andy Cohen	Western Albemarle High School
Nathaniel March	William Monroe High School

\* Students who participated in the National Olympiad Examination.

Thirteen students participated in the National Exam. The results of the national Olympiad exam showed our participants received an average score of 30 with a high of 49 and low of 19. The students received collectively five "outstanding" scores in Kinetics, redox and states and received "above average" scores in at least 5 of the 10 categories. The categories include: bonding and molecular structure, equilibrium, kinetics, descriptive and laboratory, stoichiometry and solution, organic and biochemistry, atomic structure and periodicity, oxidation and reduction, states of matter and thermodynamics.

The students with the three highest scores from all participating schools, separated by category and by test will receive a gift certificate, first place \$50, second place \$25 and third place \$10. Those students who took the National Chemistry Olympiad will also receive a \$50 certificate.

First Year Chemistry Olympiad Local Examination		
Place	Small School and Governor's School Category	Large School and Governor's School Category
First (\$50)	<b>Brian Evans</b> – The Governor's School of Southside Virginia at Alberta	<b>August Legallo-Malone</b> – Albemarle High School
Second (\$25)	<b>Mostafa Negm</b> – The Governor's School of Southside Virginia at Alberta	<b>Michael Walton</b> – Harrisonburg High School <b>Caleb Togger and Trey West</b> – Prince George High School
Third (\$10)	<b>Nathan Allen</b> – The Governor's School of Southside Virginia at Alberta	
Second Year Chemistry Olympiad Local Examination		
Place	Small School and Governor's School Category	Large School and Governor's Schools Category
First (\$50)	<b>Elijah Reese</b> – The Governor's School @ Innovation Park	<b>Lillian Xu*</b> – Western Albemarle High School
Second (\$25)	<b>Faysal Shaikh*</b> – The Governor's School @ Innovation Park	<b>William Rogers*</b> – Western Albemarle High School
Third (\$10)	<b>Brett Williams</b> – St. Stephen's & St. Agnes' School	<b>Zoe Kendall*</b> – James River High School; and <b>Mason Hale*</b> – Loudoun County High School

The team award has traditionally been given to the school with the three highest scores. Often the highest scores are accompanied by the very lowest scores in the same classroom, but the highest over all averaged score tells us something different about the school and the teachers. Therefore, a new category, **The School Award**, will be given to the school with the highest overall average, separated by test but not category. The school must have at least 7 participants, the highest and lowest scores will be discarded and the average score determined from the remaining scores.

<b>School Award</b>	<b>School</b>
First Year Exam	Prince George High School
Second Year Exam	Albemarle High School

Team Awards are given to the school having the highest combined total for three students separated by category and year. These schools will be invited to attend the December Meeting of the Virginia Section and will receive a plaque to show they won the team award.

<b>First year Team Award</b>	<b>School</b>
<b>Category</b>	
Small School & Small Governor's School	The Governor's School of Southside Virginia at Alberta
Large School & Large Governor's School	Prince George High School

<b>Second Year</b>	<b>School</b>
<b>Category</b>	
Small School & Small Governor's School	The Governor's School @ Innovation Park
Large School & Large Governor's School	Western Albemarle High School

The Virginia Section's Chemistry Olympiad website: <http://virginia.sites.acs.org/chemistryolympiad.htm>

The cost of this activity to the Virginia Section was approximately \$3000.00

Respectively submitted on May 19, 2013

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