

FEBRUARY 2025

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*It always seems impossible
until it's done.*

– Nelson Mandela



WOMEN'S BREAKFAST WITH ACS RICHLAND SECTION

Celebrate the diversity and strength of women with the American Chemical Society – Richland Section! Join us for meaningful conversation and networking, in honor of Women everywhere.

Please join us for the ACS Richland Section's Women's Breakfast on **Tuesday, February 11th, 9:30 am - 10:30 am** via Zoom. Held in conjunction with the International Day of Women and Girls in Science, the goal of "The Breakfast" is to establish an active network of people to overcome the barriers to gender equality in science. Bring your breakfast to this group celebration of diversity and strength of women. Women and all allies welcome! Register at <https://american-chemical-society.zoom.com/meeting/register/PrNoKfE-RMSS0v6rjeJs9Q> or email Mickey Rogers at michaela.rogers016@gmail.com if you have questions.

GREETINGS FROM NEW SECTION CHAIR Sonia Alcantar Anguiano



Hello ACS Richland Members, Volunteers, and Family! My name is Sonia Alcantar Anguiano and I am this year's Chair for our section. I want to thank you for your vote and for the opportunity to serve you and our community through this role. I am excited to see all the successes this year has in store for us and our student chapters.

I want to extend a warm welcome into this new year to all of you, especially those who are new and/or have transferred in from another area. My hope for our section is to be able to grow, make connections, and build friendships and partnerships. I also hope that you are able to volunteer and try new things, maybe become a mentor or an officer/chair within the section or national, or simply have a good time when participating in our activities.

Please feel free to reach out to me or any of our officers and committee chairs for more information about getting involved, or if you have ideas for an event you'd like for our section to take part in.

Thank you Shirmir Branch, for being a great Chair and mentor. Here's to 2025, another year full of success!

FAREWELL FROM PAST SECTION CHAIR Shirmir Branch



As the past chair, I am honored to reflect on the remarkable achievements from our Richland Local Section over the past year. The 2024 year started with three main goals: (1) Expand efforts on diversity, equity, inclusion, and respect (DEIR) through collaboration with other organizations; (2) Strengthen connections with other ACS local sections, student chapters and other professional societies; and (3) Foster more local section programs that focus on members and their families.

In our efforts to expand programs geared toward DEIR and inter-society collaboration, our Section has participated in several outreach events throughout the area that the Richland Section Serves. In partnering with the Society of Women Engineers, the Section participated in "Introduce a Girl to Engineering Day" focused on providing hands-on activities for students interested in the STEM field. In addition to this STEM event, the Section participated in similar outreach events. These include participating in the Earth Day events in Richland at the REACH museum as well as in Eastern Oregon led by the student chapter at Eastern Oregon University (EOU). The Women Chemists Committee also hosted a Women's Networking Brunch to celebrate the diversity and strength of women.

The Diversity and Inclusion Committee also led an impactful year, by hosting the "The Chemistry Behind Pottery" event, both at Marie Curie STEM Elementary School and the Pasco Farmers Market. This event was awarded by the DEIR grant led by Sonia Alcantar. This event provided children and their families with hands-on activities to learn more about the ceramic development process and allowed them to paint their tile to take home.

Our Section also sought to provide opportunities for our members to bring their families with them to events. These efforts were supported by the LS-MEET grant, led by Sonia

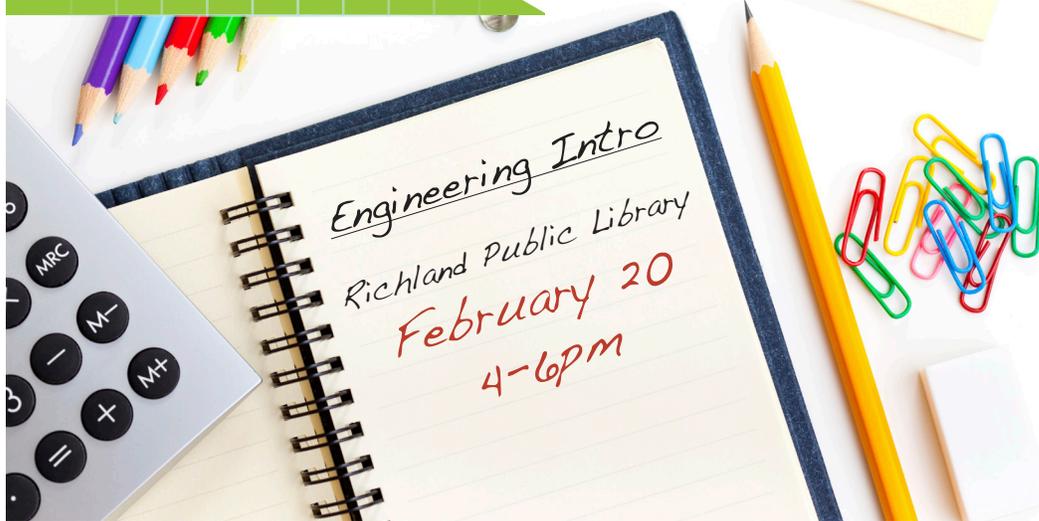
Alcantar and Vanessa Dagle. The Section was able to visit the CPCCo Planetarium at Columbia Basin College (CBC). We also visited WheatHead Brewing in Kennewick for a brewery tour led by the brewery's own brewmaster, Dan Howe. The Section was also able to visit the Coyote Canyon Mammoth Dig Site, where visitors learned about the history of the Tri Cities area through archaeology and paleontology, explores fossils discovered in the area, as well as visit the active dig site.

We hosted quite a few hybrid/virtual events in efforts to better reach members, including multiple Science Cafés and quarterly hybrid executive committee meetings. The Section hosted Dr. Kabrena Rodda, for a Science Café on recognizing chemical threats. Dr. Rodda was also inducted into the 2024 class of ACS Fellows through her nomination by the Richland Section. Another notable Science Café featured Dr. Frankie Wood-Black, who led a discussion on the impacts of risk in the scientific world.

In the last year, we also saw many accomplishments from our students. The student chapter at EOU hosted a variety of events in and around La Grande, Oregon, which contributed to them earning the Outstanding Student Chapter award at the ACS 2024 Spring Meeting. Both the EOU and CBC student chapters hosted events for National Chemistry Week, including the first Program in a Box event since 2020, and Mole Day celebrations.

We wrapped up our year with our Annual Social at the Richland Community Center to celebrate all of the accomplishments of our members throughout the year. We also recognized two milestone members for their service of 50 and 60 years to the American Chemical Society. All these initiatives helped to make 2024 a highly successful year for the Richland Section. I would personally like to thank all of the members, volunteers, and the executive committee for your support and continued service to the Richland Section.

INTRODUCE A GIRL TO ENGINEERING DAY



The Richland Section will be joining forces with other Tri-Cities science organizations and the Richland Public Library to participate in an engineering program for girls. The program will be held at the Richland Public Library on **February 20 from 4-6pm**. For information and to volunteer to help, please contact please contact Shirmir Branch, email shirmir.branch@pnnl.gov

2025 RICHLAND SECTION BUDGET FOR MEMBER INFORMATION



Jared Kroll,
Treasurer

I am pleased to present the Section's 2025 budget, which has been approved by the Executive Committee. Primary sources of income include an annual allotment from ACS National (\$8,094), reimbursement from the ACS for Councilor travel (\$4,000), and local section dues (\$1,000). Your voluntary \$5 contribution when paying ACS dues is greatly appreciated! Additionally, this year's budget includes \$8,500 in ACS grants (item 5).

On the expense side, the budget reflects our commitment to advancing chemistry in its broadest sense—fostering scientific inquiry, disseminating chemical knowledge, supporting professional development, and promoting public education and welfare. Notably, \$5,750 has been allocated for local student and teacher awards (items 14a-f), representing an increase of over \$2,600 from 2024.

While the overall budget projects a deficit of \$14,811, the Section has sufficient carryover funds from previous years to cover this amount.

If you have any comments or questions, please feel free to contact me at Jared.Kroll@pnnl.gov.

	2024 Final	2025
REVENUES		
(1) Annual ACS Allotment (plus dues)*	\$10,087	\$8,094
(2) New member commissions	\$0	\$15
(3) Donations, contributions	\$0	\$0
a) Bequests and/or trusts	\$0	\$0
(4) Rebate from ACS for Councilor travel expenses	\$3,887	\$4,000
(5) ACS Awards or Grants received (e.g., METT, IPG, ACS Inter-Chapter Relations Grant)	\$9,950	\$8,500
(6) Program revenue (short courses, lecture series etc.)*	\$0	\$0
(7) Local section dues, affiliate dues	\$1,050	\$1,000
(8) Interest, dividends*	\$158	\$130.00
(9) Special events and activities (*reimbursements)	\$0	\$0
(10) Meals (include total meals in revenue)	\$0	\$0
(11) Other revenue (describe and itemize)		
a) Contribution to joint society meeting	\$0	\$0
b) Early bird discount for leadership training	\$800	\$400
(12) TOTAL REVENUES	\$25,931	\$22,139
EXPENSES		
(13) Subsidies to subsections, topical groups, or affiliate groups	\$0	\$0
(14) Awards, scholarships, grants, etc.		
a) Travel awards/Registration for ACS student members	\$2,858	\$4,000
b) K-12 STEM Teacher Grants	\$0	\$500
c) Outstanding Teacher Award	\$0	\$300
d) High School Student Award	\$200	\$200
e) General Awards (for milestone members)	\$0	\$550
f) Supplemental Awards	\$0	\$200
(15) Administrative expenses (financial bookkeeping)	\$98	\$100
(16) Printing, publications, newsletters, meeting announcements, postage		
a) Newsletter	\$1,250	\$1,700
b) Public relations	\$0	\$200
c) Web update	\$65	\$100
d) Miscellaneous	\$0	\$200
(17) Local Meetings (include speakers' expenses)		
a) Speakers	\$0	\$300
b) ACS Picnic	\$516	\$600
c) ACS Annual social	\$3,415	\$5,500
d) Science Cafes	\$215	\$500
(18) Meals	\$0	\$0
(19) Travel subsidies to Councilors	\$4,314	\$4,000
(20) Travel subsidy and fee for Local Section Leadership Conference	\$1,092	\$4,500
(21) Other expenses (describe and itemize)		
a) K-12 outreach	\$100	\$500
b) Grant (METT, IPG, other ACS grants)*	\$3,988	\$8,500
c) NCW	\$223	\$400
d) Olympiad	\$22	\$200
e) Science Fair and award	\$650	\$650
f) Investigators of Science	\$600	\$600
g) Saturday Science	\$0	\$500
h) Diversity Affairs Committee	\$315	\$300
i) Earth Day	\$348	\$350
j) Project SEED	\$0	\$0
k) Joint society meeting	\$0	\$100
l) Women Chemists Committee	\$995	\$600
m) Environmental improvement committee	\$0	\$200
n) Chemical safety committee	\$0	\$300
o) Young Chemist Committee	\$0	\$300
(22) TOTAL EXPENSES	\$21,265	\$36,950
(23) EXCESS (DEFICIT)	\$4,666	-\$14,811

'25 OFFICERS & COUNCILORS

Meet your newly elected ACS Richland Section Officers and Councilors. They are volunteering their time and talents to help make this section inclusive for each and every member. Please help them in any way you can by volunteering your ideas and time to help our events succeed.



CHAIR
SONIA ANGUIANO

(509) 440-8747
sonia.alcantaranguiano@pnnl.com



CHAIR-ELECT
VANESSA DAGLE

(509) 371-6510
vanessa.dagle@pnnl.gov



PAST-CHAIR
SHIRMIR BRANCH

(509) 375-3860
shirmir.branch@pnnl.gov



SECRETARY
EMILY DIAZ

(509) 375-7162
emily.diaz@pnnl.gov



TREASURER
JARED KROLL

(509) 375-3607
jared.kroll@pnnl.gov



COUNCILOR
ANNA CAVINATO

(541) 786-5769
acavinato@eou.edu



ALT. COUNCILOR
DAVID HELDEBRANT

(509) 372-6359
david.heldebrant@pnnl.gov

CALL FOR SCIENCE FAIR JUDGES



70TH ANNUAL
MID-COLUMBIA
SCIENCE FAIR

**Help continue the
Richland Section's
commitment to
STEM education**

The 2025 fair will be held on Thursday, March 13, 2025 at Washington State University Tri-Cities. The Richland section has been a proud sponsor of STEM education in the Columbia Basin for many years. In addition to the general judging, the section will need help judging its own award for the best chemistry projects. Please help us judge and identify the best middle school (grades 6-8) and best high school chemistry projects (grades 9-12). Winners will be presented with a certificate of accomplishment and a \$50 cash prize and given an invitation to present at our section's annual social.

The Richland Section chemistry awards are separate from any other award presented by the Mid-Columbia Science Fair (MCSF) and the winners are decided solely by the Richland Section. Therefore, it is not necessary to register as a judge with the MCSF. Simply contact the person heading up the Richland Section's efforts, David Heldebrant david.heldebrant@pnnl.gov, and meet at the event on **March 13 at 8am**. See you there!

CALL FOR SCIENCE FAIR JUDGES MARCH 13

WANT TO GET INVOLVED? SEEKING PR CHAIR

THE RICHLAND SECTION CURRENTLY HAS A VACANCY FOR CHAIR OF THE PUBLIC RELATIONS (PR) COMMITTEE. NO EXPERIENCE NEEDED! FOR INFORMATION OR TO VOLUNTEER, CONTACT THE SECTION CHAIR, SONIA ALCANTAR, EMAIL: SONIA.ALCANTARANGUIANO@PNNL.COM

NATIONAL CHEMISTRY WEEK IN LA GRANDE

Richland Section members based in La Grande celebrated NCW with several events, including a large outreach at the local Saturday market, participating in the Program-in-a-Box event organized by ACS and organizing *Investigators of Science*. Many of the hands-on activities offered revolved around the NCW theme “Picture perfect chemistry”. The event at the market took place on Saturday October 19 and included activities based on magnets and how their magnetic fields interact when placed close to each other; exploring how sunlight interacts with UV paper when covered and uncovered by objects; and building rockets using film capsules, baking soda, citric acid, and water. The event was very successful with over 60 children and adults participating in the hands-on activities.

On October 23 (Mole Day!) student members at Eastern Oregon University (EOU) hosted a table in the science building with games and giveaways, including the very popular nanomoles! Later in the day they participated in the ACS Program-in-a-Box event where students and other local ACS members participated in trivia and talks guided by ACS speakers. Prizes were provided through ACS to hand out to participants for the trivia questions and other activities. The club provided drinks and snacks for attendees as well. One of the students participating placed 33rd among participants from around the nation in the trivia!

On November 2, *Investigators of Science*—a STEM day-camp for middle school students - was held on the EOU campus. Each year, students tackle a mystery using hands-on techniques in biology, chemistry, math, and computer science. This year’s investigation focused on exploring potential causes of a fish die-off in the fictional Gray Bay. Chemistry activities included a session on water chemistry, where students tested how nitrates, phosphates, toxic metals, or oil spills from human activity could impact fish health. Biology activities examined the role of parasites, explaining how these organisms thrive in warmer waters and can harm fish gills. Math and computer sessions focused on data analysis techniques to interpret findings and how computer software can be utilized to analyze fluorescent images of diseased fish. Drawing 80 attendees from 6 rural and frontier counties across Oregon, *Investigators of Science* offered a unique opportunity for students to explore a multidisciplinary approach to understanding real-world problems.

At each outreach event participants received copies of *Celebrating Chemistry* in English and Spanish and other NCW giveaways provided by the Richland Section. All the activities were made possible with help from many volunteers including EOU STEM faculty, student clubs and community volunteers, and members of the ACS Richland Section. The Northeast Oregon Area Health Education Center (NEOAHEC) played a major role assisting with advertisement, registration, designing and producing the t-shirts and arranging for all logistics for the *Investigators of Science*. In addition, the Richland Section and Soroptimists International provided monetary support for the event.



CROSSWORD PUZZLE - CHEMISTRY JOKES

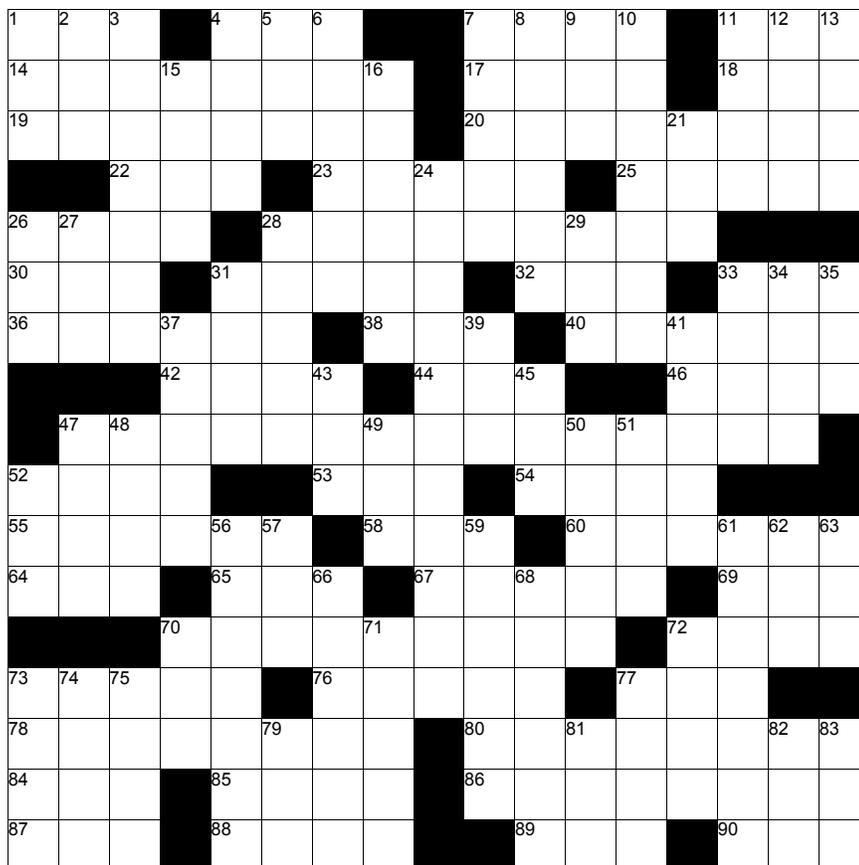
ABOUT THE AUTHOR

Robert Pike is a professor of chemistry at The College of William & Mary. He is an inorganic chemist with interests in Materials for Sensors and Catalysts, Metal-Organic Networks Chemistry, X-Ray Crystallography, and Chemistry Education, in addition to creating crossword puzzles.

Chemistry Jokes Robert D. Pike

ACROSS

1. Self-assigned "greatest" boxer
4. Mai _____
7. Strong _____ ox
11. Reefer
14. Happy endings for 51-down
17. Indonesian resort
18. Lennon widow
19. Element not found on the periodic table?
20. Obviousness
22. Gunslinger's talent
23. Google competitor
25. Britain's war of the _____
26. Sharpen
28. Musical style incorporating multiple keys
30. Be unwell
31. Epoxyed
32. com alternative
33. Subdivision site
36. Possible consequence of wrong-doing
38. "Beats" Dr.
40. Chemistry lecture topic eliciting no reaction?
42. Tirade
44. Tired
46. Ingests
47. Hitler's treatise on organic stereochemistry?
52. It may be made from rags or porcelain, e.g.
53. Dickensian interjection
54. Coder
55. Water-insoluble bear?
58. Corn core
60. Gave lip
64. A desire
65. Chemical formula of Millerite
67. Addictive Asian nut
69. Corp. head honcho
70. Traffic regulator
72. Fossil fuels
73. Obsession
76. Indy entrant
77. _____ gratia artis



© Literate Software Systems

- | | | |
|---|---|--------------------------------|
| 78. Designers of 1-down | 10. Price break for nocturnal chemists? | 48. Tesla's Mr. Musk |
| 80. Problem with the Lewis dot structure for hydroxide? | 11. Brain region | 49. It's big at Micky D's |
| 84. Oedipus or T. | 12. Not repeated | 50. Take-two button |
| 85. Dies _____ | 13. _____ 'R' Us | 51. Repast |
| 86. Acrobatic avians | 15. Finger of land | 52. Kind of spa |
| 87. Founded, abbrev. | 16. Water-proofed | 56. HCOOH? |
| 88. Fox sitcom 2013-2014 | 21. Early ISP | 57. 2016 Olympics city |
| 89. Pig pen | 24. Fearful of utility bills? | 59. Sires |
| 90. Decay | 26. "It _____ the best of times..." | 61. A soccer kick |
| | 27. Boffo | 62. Moray, e.g. |
| | 28. Platform detail | 63. Early Microsoft product |
| | 29. O.T. book | 66. Peanut butter, e.g. |
| | | 68. Projects |
| | | 70. It may be venial or mortal |
| | | 71. Produces a coherent beam |
| | | 72. A thesis defense |
| | | 73. She-horse |
| | | 74. A long time |
| | | 75. _____ of kin |
| | | 77. With competence |
| | | 79. Gerswhin brother |
| | | 81. Morsel for 73-down |
| | | 82. _____ Jima |
| | | 83. Chicago hour |

DOWN

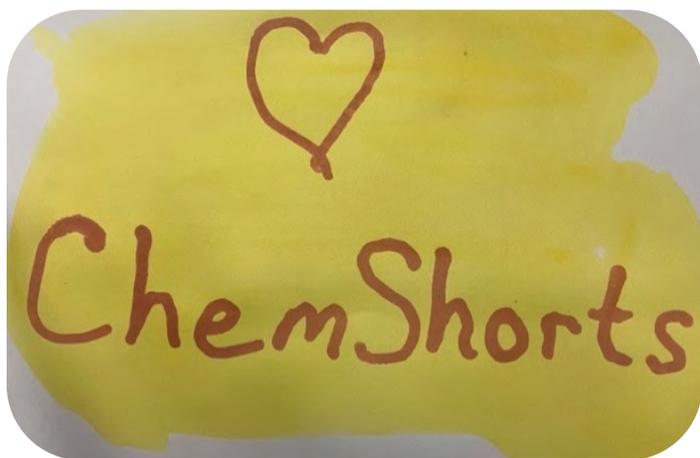
1. Promotions
2. An amino acid, abbrev.
3. Knesset member, e.g.
4. Length of appointment
5. Entourage character Gold
6. Baby, _____ (Bacharach/Shirelles tune)
7. Top monk
8. Old west fixture
9. Just like
31. Federal agent
33. Dissembler
34. 27 are needed to win in baseball
35. NMR std.
37. Dental bling
39. 2003 Will Ferrell movie
41. Onion cousins
43. Saccharin-containing cola
45. Canis familiaris
47. Stay sad

FIND
THE

SOLUTION

WWW.ACSRICHLAND.ORG/NEWS

CHEMSHORTS FOR KIDS - SECRET MESSAGES



Writing a secret message is always a fun way to communicate. There are a number of different ways in which this can be done, but this one I've not seen before and it is fairly quick to do with some household chemicals.

MATERIALS

- Baking Soda
- Rubbing Alcohol (Isopropyl Alcohol)
- Turmeric
- Q-tip
- Paint Brush or Cotton Ball
- Plastic Table Cloth or Garbage Bag
- Cookie Tray
- Sheet of White Paper
- Spoon
- Glass or Disposable Cups
- Tablespoon, Teaspoon, and ½ Cup Measuring Instruments

CAUTION

The spice turmeric can stain fingers and surfaces. You may want to wear disposable gloves if you're using a cotton ball to paint on the turmeric.

EXPERIMENT

Mix 1 tablespoon of baking soda with ½ cup of warm water in a cup and stir with a spoon. The more dissolved the baking soda the better the experiment will work. Dip the Q-tip into the solution and write your message on the paper. Make sure that the Q-tip is fully wet so it may need to be added to the solution for each letter. The hard part of this experiment is to see what you've written so do the best you can. Set the paper aside to dry.

Now make your turmeric solution by mixing 1 teaspoon of turmeric with ½ cup of rubbing alcohol in a cup and stir with a spoon. Once your paper is dry put it in the cookie tray and with a paint brush or cotton ball (don't stain your fingers), wipe the surface of the paper with the turmeric solution. Allow this to dry and view your secret message in red.

WHAT'S HAPPENING?

Curcumin is the active ingredient in turmeric. This compound is an acid and is yellow in color. The baking soda (active ingredient is sodium bicarbonate) is a base. When the acidic curcumin reacts with the base, it turns red and therefore we call turmeric an acid-base indicator since the color will tell us if curcumin is reacting with an acid or a base. The change from yellow to red occurs at approximately a pH of 8 which is just a little more basic than a neutral pH of 7.

EXTENSION

Can you find other substances around the house that will change the turmeric from yellow to red (window cleaner, oven cleaner, etc.)? Another common acid-base indicator is red cabbage juice. This substance will undergo many color changes and will be more specific with regard to the pH and the color of the solution. You can check the pH of other common household ingredients using red cabbage juice.

ABOUT THE AUTHOR *Dr. Paul Brandt is the Chair at the Department of Chemistry and Physics at North Central College in Naperville, Ill. He enjoys writing Chemistry Shorts for Kids for the ACS Chicago Section's newsletter.*

UPCOMING EVENTS

FEBRUARY 11

Richland Section Women's Breakfast on Zoom from 9:30 - 10:30am

Information: Mickey Rogers, michaela.rogers016@gmail.com

RSVP: <https://american-chemical-society.zoom.com/meeting/register/PrNoKfE-RMSS0v6rjeJs9Q>

FEBRUARY 20

Introduce a Girl to Engineering Day from 4-6pm

Richland Public Library; More info: shirmir.branch@pnnl.gov

MARCH 1

Kids Engineering Day from 10am-1pm

Mark Twain Elementary School; More info: https://www.facebook.com/events/3781288488867297/?acontext=%7B%22event_action_history%22%3A%5b%5d%7D

MARCH 13

Mid-Columbia Science Fair Judging from 8:30am-12:30pm

Washington State University Tri-Cities; Info & Registration: David Heldebrant, david.heldebrant@pnnl.gov

MARCH 23 - 27

ACS Spring Meeting in San Diego, California

APRIL 2025

Earth Day Celebration

Watch our website events calendar for details

UP TO DATE INFO ON EVENTS & MORE

<https://acsrichland.org>

Content for future newsletters may be sent to the Section editor Steve Krogsrud: steve_krogs@hotmail.com

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www.visualvervedesign.com