

October 2019 wordoku

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | C | | E | | A |
| | | | S | H | | | | | C |
| | U | | | | | M | | S | E |
| E | | C | | | H | | | M | H |
| K | | | V | | S | | | H | K |
| S | | | C | | | V | | U | M |
| M | | K | | | | | A | | S |
| | | | | V | A | | | | U |
| | A | | H | | | | | | V |

Solve this wordoku in the same way as a sudoku with letters instead of numbers (each of the nine letters in each row, column and nine-square cell). Once solved, one of the overall diagonals can be rearranged into the name of a Russian-Canadian polymer chemist who received a Royal Society of Chemistry prize in 2019.

October 2019 word grid

| | | |
|----|---|----|
| Li | C | S |
| Pr | I | Ti |
| B | O | Ba |

Prize entry: Using each element symbol in the grid only once, combine them together to make a single word of 13 letters.

Word.....

Just for fun: Construct as many other words as you can using a minimum of three symbols, and each symbol only once.
 6 words: OK
 9 words: Good
 12+ words: Excellent

October 2019 crossword

| | | | | | | | | | | | | | | |
|----|----|----|--|----|--|----|----|----|----|----|----|----|--|---|
| | 1 | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | |
| 8 | | | | | | | | | | | | | | 9 |
| 10 | | | | | | | | | | 11 | | | | |
| | | | | | | | | | | | | | | |
| 12 | | | | | | 13 | | | | | | | | |
| | | | | | | | | | | | | | | |
| 14 | | | | 15 | | | | | 16 | | | 17 | | |
| | | | | | | | | 18 | | | | | | |
| 19 | | | | | | | 20 | | | | | | | |
| | | | | | | 21 | | | | | | | | |
| 22 | | 23 | | | | | | | | | 24 | | | |
| | | | | | | | | | | | | | | |
| 25 | | | | | | 26 | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | 27 | | | | | | | | | | | | | |

October 2019 science scramble

Similar to a word ladder, each answer provides letters that must appear - including duplicates - in the answer immediately following it. The puzzle's final answer is a scientist or someone who contributed to science.

For example:

- 1 sail
- 2 snail
- 3 saline
- 4 minerals
- 5 Neil Armstrong

Entry form

There are four prize puzzles on this page: crossword (cryptic answers only); wordoku; science scramble; and word grid. For each puzzle, a winner will be selected from all the correct entries received and awarded a £25 book voucher.

You can enter any or all of the prize draws, but each entrant is only eligible to win one of the individual puzzle prizes each month.

Please enter your details below and either post or email this page with your completed entries to us by **20 October 2019**. The winners of this month's puzzles will be published in the November 2019 issue, along with the solutions.

Chemistry World puzzles, Royal Society of Chemistry,
 Thomas Graham House, Science Park, Milton Road,
 Cambridge, CB4 0WF, UK
 Email: chemistryworld@rsc.org

Name

Address

Participants are advised that any personal information supplied will be processed in connection with this competition and only in accordance with our privacy statement (www.chemistryworld.com/privacy).

| | | |
|---|-------|--------------------------------------|
| 1 | _____ | Headgear (3) |
| 2 | _____ | Form of energy (4) |
| 3 | _____ | Machine of the turner (5) |
| 4 | _____ | C ₂ H ₅ OH (7) |
| 5 | _____ | British crystallographer (8, 8) |

Cryptic (prize entry)

- Across**
- Gangster upsets Nobel chemist (5, 1, 7)
 - In confusion, no November invite for necessity's child (9)
 - Sheepish in Barolo vineyard (5)
 - Spaced-out dog left out alkali mixture (5)
 - Order shiny peas? Very difficult! (9)
 - Red lizard losing tail in a pickle? (8)
 - Biome son says contains tiny particles (6)
 - Some deer are still most uncommon (6)
 - Eager, Pam altered current strength (8)
 - Nag seamen about metal (9)
 - Knick-knack from Copper City? (5)
 - Charged particle originating awful noise in our neighbourhood (5)
 - Arrange a darn nice performance for possible precipitation? (4, 5)
 - Somehow trace tree form with lab device? (13)

- Down**
- Oddly ironic, Ravel's playing to French chemist (9)
 - Lacking energy, Janine turns to warrior (5)
 - Odd spirit upsets carts for a period (8)
 - 17 Down Cleaners were not upsetting physicist (6, 1, 8)
 - I developed beer hops ecosystem (9)
 - Letters about her in river? (5)
 - Mike redirects railway's mail to Scottish chemist (7, 6)
 - Surprisingly Sue jeered one's gilded youth across the channel (8, 5)
 - Oddly beer turns Tsarina into teetotaler (9)
 - See 5 Down
 - Claim pet I got was carrying skin complaint (8)
 - Offer Richard a little iron? (6)
 - No issue not even for this sound (5)
 - Cad, for example, returns to scrounge (5)

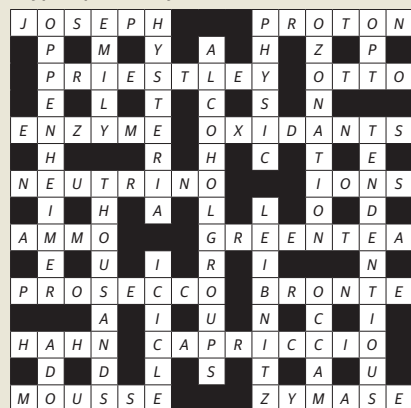
Quick (just for fun)

- Across**
- Canadian nuclear physicist famous for their work on nuclear transmutations and radioactivity (7, 6)
 - Win by considered argument (9)
 - Jewelled crown worn by women (5)
 - See 7 Down
 - Invigorated (9)
 - Water (5, 3)
 - 16, 24 Across American-Italian physicist and creator of the world's first nuclear reactor (6, 5)
 - South African antelope (6)
 - Sites of ribosome biogenesis (8)
 - Small photo or part of human anatomy (9)
 - See 16 Across
 - Start (5)
 - Common disease of roses (5, 4)
 - Measurement of aptitude and personality traits, often used in candidate selection (13)

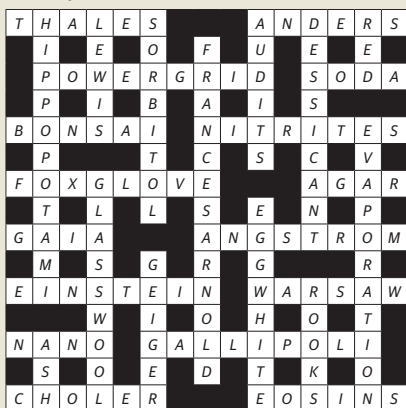
- Down**
- Strong pressurised and heated container used for sterilisation or chemical reactions (9)
 - Mouthpiece parts of some woodwind instruments (5)
 - Wind direction (8)
 - German chemist, co-discoverer of caesium and rubidium (6)
 - Eight-sided (9)
 - 12 Across German theoretical physicist and spy (5, 5)
 - Large and destructive fire (13)
 - Heart specialists (13)
 - Relating to scurvy (9)
 - Uniform in all directions (9)
 - Enzyme that cleaves nucleic acids (8)
 - Intrusive igneous rock (6)
 - Genus of bears (5)
 - Religious ascetic (5)

September 2019 solutions and winners

Cryptic (prize entry)



Quick (just for fun)



Wordoku

The name of the chemical element was ALUMINIUM

Word grid

The nine-symbol word was INHIBITION

Science scramble

- Sine
- Ionise
- Lionise
- Rationalise
- Antoine Lavoisier

September's winners

- Science scramble**
H Merritt
Bishop's Stortford, UK
- Wordoku**
Liza Seymour
Bad Wörishofen, Germany
- Word grid**
Alice Dowden
London, UK
- Crossword**
Seth Wiggin
Stowmarket, UK

Answer to On the spot
The feeling of dread when reaching into a communal lab coat pocket will be a familiar one to most chemists. Sweaty gloves, pipette teats and spatulas are all common in inhabitants but provoke very different responses. The critical question on the vial of mystery powder is whether or not any of the contents has spread onto the visitor whether by a loose cap or a dirty vial. If so, she should wash her hands. Efforts should be made to deduce the vial's most likely contents by asking those working in the lab, if there are any adverse reactions or other concerns, the visitor should seek medical advice. Good labelling practice would have prevented this happening in the first place.

Charles Harrison is a safety adviser at a UK university.

On the spot



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