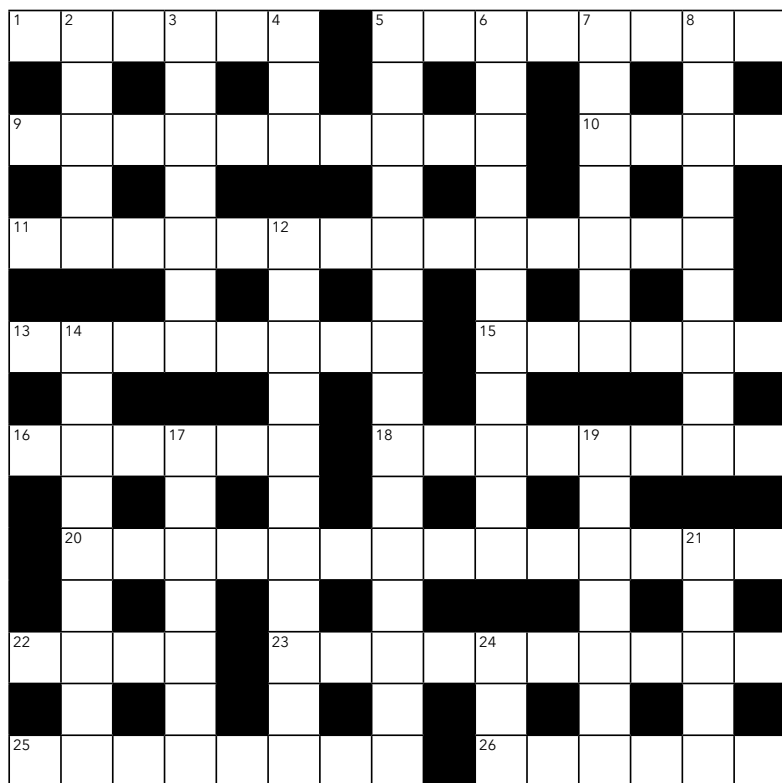
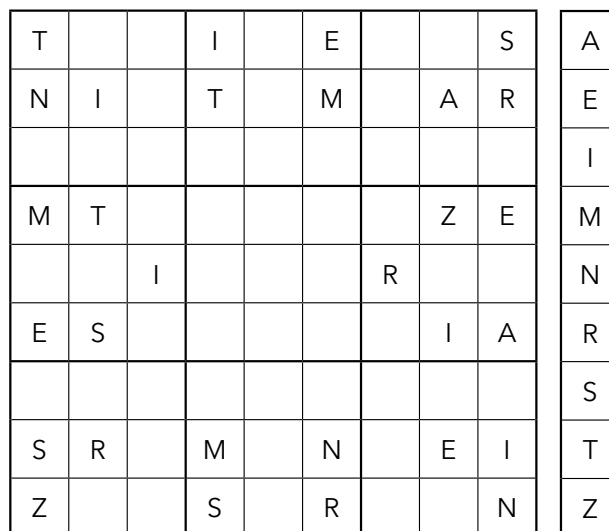


May 2024 crossword



May 2024 wordoku



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, rearrange one of the overall diagonals to name a group of synthetic drugs currently causing concern.

Cryptic

Across

- 1 Some hood I ousted - horrible! (6)
- 5 Doctor curbs the composer (8)
- 9 Mike left eery mastery to recreate the past (10)
- 10 Sour letters about the pathologist (4)
- 11 A deathly letter about the fuel additive (10, 4)
- 13 Enzyme that comes in ten odd rhombi forms? (8)
- 15 Nicer to the German children? (8)
- 16 Many howl a little at random (6)
- 18 Leaving delta, model sunk on arrangement for entrepreneur (4, 4)
- 20 Chemist rode toward brow on the turn (6, 8)
- 22 Earlier form of cone (4)
- 23 Different types of postal role abroad? (10)
- 25 Knew about apes' dystopian language (8)
- 26 Sage with extreme indignation upset the mathematician (6)

Down

- 2 Compound I need prepared (5)
- 3 Loves taking train to the province (7)
- 4, 6 Down Rats look horrid to this British chemist (3, 6, 5)
- 5 Hope weakest link confounded the chemist (9, 6)
- 6 See 4 Down (6, 5)
- 7 Maybe bend ear of the double Nobel laureate (7)
- 8 Undress on order to show rotundity (9)
- 12 Joint movie hard work? (5, 6)
- 14 Nice right hand perhaps can be a drawback (9)
- 17 That man concocts a book (7)
- 19 Despatch with a Flymo? (3, 4)
- 21 Outwardly horses are scattering the birds (5)
- 24 Returning parents oddly ignored the drink (3)

Quick

Across

- 1, 5 Across US theoretical physicist awarded the 1969 Nobel prize for physics (6, 4-4)
- 5 See 1 Across (4-4)
- 9 Anthraconite (10)
- 10 Plant source of a tropane alkaloid from which it gets its name (4)
- 11 Italian astronomer and physicist of the Renaissance (7, 7)
- 13 Electron capture _____, a device invented by James Lovelock to establish the effect of CFCs on our atmosphere (8)
- 15 Israeli particle physicist (6)
- 16 Low melting point metal alloy used for connections in electronic circuits (6)
- 18 Describing chemistry, biology and physics, for example (8)
- 20 Pigment which has a different excitation wavelength than its emission wavelength (11, 3)
- 22 Organic group R-C=O or H-C=O (4)
- 23 One name for the source of cantharidin (albeit an incorrect one as the source is a beetle) (7, 3)
- 25 Steroid hormone, C₂₁H₃₀O₅ (8)
- 26 Bestows (6)

Down

- 2 _____ High Frequency, the radio frequency between 300MHz and 3GHz (5)
- 3 Absolute temperature scale named after a University of Glasgow engineer and physicist (7)
- 4 Affirmative (3)
- 5 German chemist and physician who developed the phlogiston theory of combustion (which was later debunked) (5, 5, 5)
- 6 Mineral with the formula FeAs₂ (11)
- 7 Lipid molecule dispersed in a liquid as part of a colloidal suspension (7)
- 8 Blink (9)
- 12 Ventures (11)
- 14 As a result of one's status or position (2, 7)
- 17 Composite quantum state of a system with an effective spin of 1/2, so there are two allowed values of the spin component (-1/2 and +1/2) (7)
- 19 Nicked, serrated (7)
- 21 US nuclear physicist who developed the radioimmunoassay method (5)
- 24 Frozen water (3)

Quick quiz:

- Which British butterfly is named after an element, albeit an old name for that element?
- Lobsters have blue blood due to haemocyanin with copper at the centre of the molecule, while sea cucumbers have yellow blood due to the presence of which element?
- Cat ketone (4-mercapto-4-methylpentan-2-one or 4MMP) is one of the smelly substances in cat urine. This compound is also a flavour component of which well-known wine grape?
- Locally mined *Plumbago* was used to mark sheep in Cumbria. What is it now known as?
- What type of iron is named after a farmyard animal?

Solutions: 1. Brimstone, otherwise known as sulfur 2. Vanadium 3. Sauvignon Blanc 4. Graphite 5. Pig iron

Entry form

There are four prize puzzles on this page: cryptic crossword; quick crossword; wordoku; and coronene. For each puzzle, a winner will be selected from all the correct entries received and awarded a £25 UK 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 email a scan or photograph of this page with your completed entries to us by **20 May 2024**. The winners of this month's puzzles will be published in the June 2024 issue, along with the solutions.

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).

May 2024 coronene puzzle

This new puzzle is based on coronene. Using the elemental symbols (and not switching the 2 letters of any 2-letter elemental symbols), place each of the seven elemental symbols in the hexagons to spell out three words reading diagonally (plurals allowed). In each of the four puzzles there will be a shared element in the middle hexagon which when combined and reading across will spell out the name of another compound.

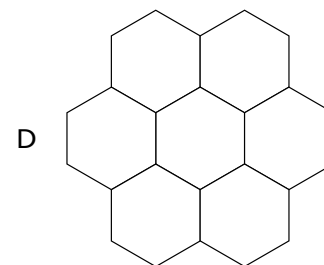
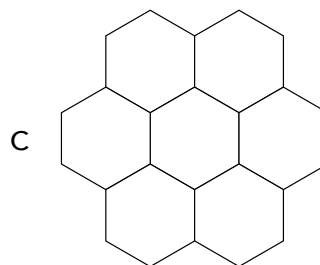
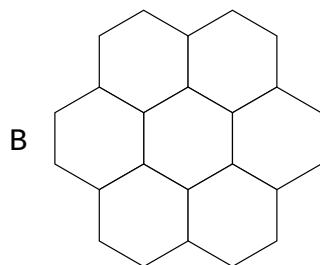
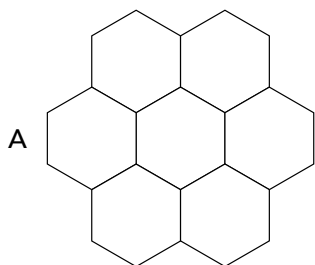
Elements:

A. Al, Er, Es, Fe, Li, O, V

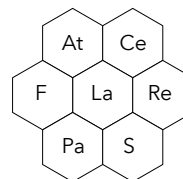
B. Al, Co, F, S, Sc, Se, Y

C. Ac, Ce, Ds, I, N, Pr, Ru

D. Co, Er, Li, Ne, Pa, S, Y



For example:



Answers:

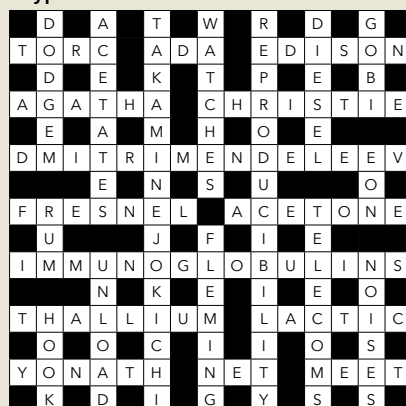
Atlas

Flare

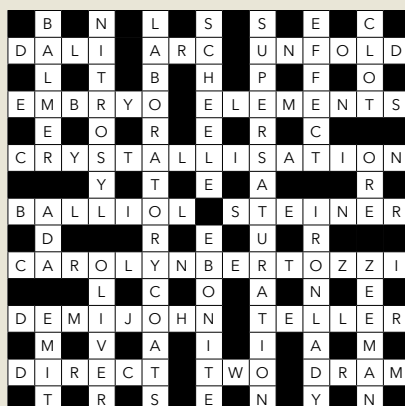
Palace

April 2024 solutions and winners

Cryptic



Quick



Wordoku

The antiviral medication was ACICLOVIR

Coronene puzzle

- Canine, Genial, Panic
- Braces, Fracas, Snack
- Brine, Coin, Flits
- Lanes, Tents, Tinge

The compound running across was Niacin.

April winners

Coronene
Tanja Van Mourik
Leven, UK

Wordoku
Nigel Cooper
Leeds, UK

Cryptic crossword
Rachel Sirotnina
Cambridge, UK

Quick crossword
James Irwin
Hitchin, UK