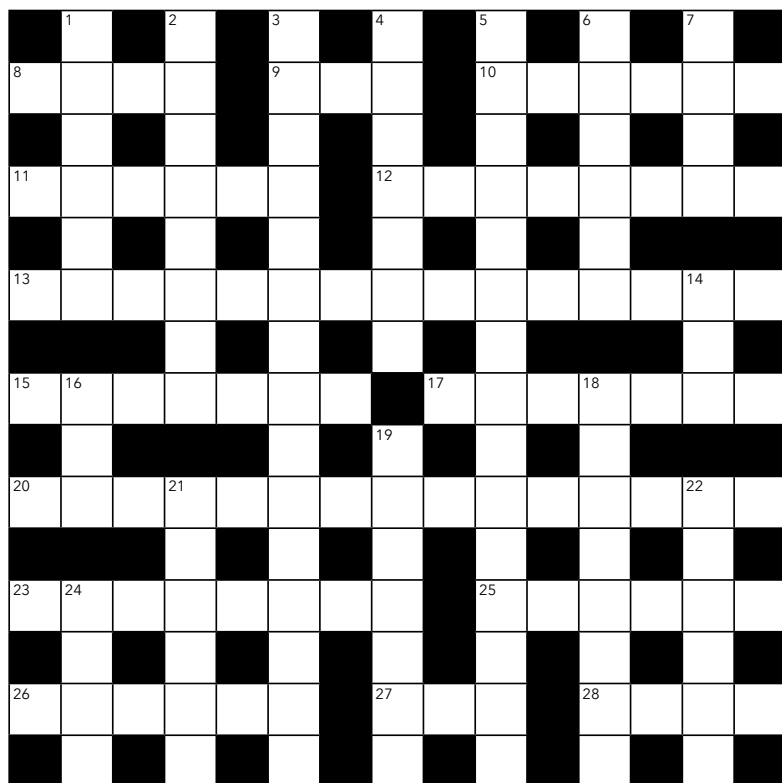


April 2024 crossword



April 2024 wordoku

	S			A										A	
8															C
			M	O								R	C		I
			C					I				A			L
	O	L													M
													O		O
													C	S	R
		R		V						O					S
	S	M							R	L					V
								S				I			

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 to give an antiviral medication.

Cryptic

Across

- 8 Ring around court, but no uniform (4)
- 9, 26 Across A day on a theoretical course begins with a crystallographer (3, 6)
- 10 A little riled, is onto the inventor (6)
- 11, 12 Across Crime writer irate, aghast about odd cliché (6, 8)
- 12 See 11 Across (8)
- 13 Russian chemist delivered me mint confection (6, 9)
- 15 Physicist feels wrong-even abroad (7)
- 17 Without initial help, teach one to become solvent (7)
- 20 Mob using Mullion to produce antibodies? (15)
- 23 Metal discovered in territorial borders? (8)
- 25 Milky mixture of talc and ice cream topping? (6)
- 26 See 9 Across (6)
- 27 Clear some cane toads (3)
- 28 Gathering to be found at the butcher's counter by the sounds of it (4)

Down

- 1 Car that gives a fair ride (6)
- 2 Salts tease cat somehow (8)
- 3 Jack and Mike on Haiti arranging to find the Japanese chemist (8, 7)
- 4 Keeps an eye out for the timepieces (7)
- 5 Doctors ridicule probity? It's the same again and again (and again...) (15)
- 6 Ed lies about the eponymous inventor (6)
- 7 Current bog will return to desert (4)
- 14 Heroine oddly ignored for a long time (3)
- 16 Strange drink? (3)
- 18 Come let's broadcast the communication services (8)
- 19 Maybe mingle with first free microbiologist? (7)
- 21 Share land with Open University after development (6)
- 22 Cries when nose is broken? (6)
- 24 Catch first hustler out - OK? (4)

Quick

Across

- 8 Surrealist artist and painter of *The Persistence of Memory* (4)
- 9 Part of a circle (3)
- 10 Develop (6)
- 11 Stage before foetus (6)
- 12 120 of them in the Periodic Table (8)
- 13 Heat of _____, the amount of heat that must be removed from one gram of a saturated solution at its freezing point to freeze it with no change in temperature (15)
- 15 Oxford University college where the evolutionary biologist Richard Dawkins studied (7)
- 17 Austrian philosopher who founded anthroposophy (7)
- 20 Co-recipient of the 2022 Nobel prize in chemistry 'for the development of click chemistry and biorthogonal chemistry' (7, 8)
- 23 Bulbous narrow-necked bottle, sometimes enclosed in a wicker cover (8)
- 25 Theoretical physicist known as the Father of the Hydrogen Bomb (6)
- 26 What the D stands for in AC/DC (6)
- 27 Base of binary (3)
- 28 Unit of weight equal to one sixteenth of an ounce (4)

Down

- 1 The _____ series describe the spectral line emissions of the hydrogen atom (6)
- 2 Functional group in which (-N=O) is attached to an organic molecule (8)
- 3 Must-have clothing for chemists at the bench (10, 5)
- 4 Swedish chemist who discovered chlorine (7)
- 5 Physical state in which a solution contains more solute than the equilibrium solubility allows (15)
- 6 See 22 Down (6)
- 7 Embolism (4)
- 14 Parent rock (3)
- 16 ___ Lovelace, mathematician and writer who worked on the Analytical Engine with Charles Babbage (3)
- 18 Nickname of former UK prime minister who studied chemistry at Oxford (4, 4)
- 19 Hard rubber (7)
- 21 _____ Sacks, author of *Uncle Tungsten, Memories of a Chemical Boyhood* (6)
- 22, 6 Down Phenomenon where a magnetic field splits a spectral line into several components (6, 6)
- 24 Radiate (4)

Quick quiz:

- Which element did American chemist and inventor Charles Goodyear use to vulcanise natural rubber, enabling crosslinking of the carbon chains for its use in tyres?
- Sodium azide (NaN_3) is an explosive. But where might you find it as a safety feature in modern vehicles?
- German chemist Friedrich August Kekulé reportedly elucidated the structure of an important organic molecule while dreaming on a Clapham omnibus. What was it?
- The first lightweight alloy wheels were made of which metallic element?
- C_2HCl_3 was once used as a degreaser and to clean rocket engines. One of the compound's common names is another form of transport. What is it?

Solutions: 1. Sulfur 2. The airbag 3. Benzene 4. Magnesium 5. Trike

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 **19 April 2024**. The winners of this month's puzzles will be published in the May 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).

April 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.

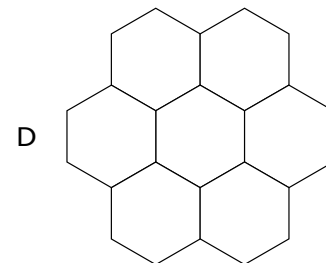
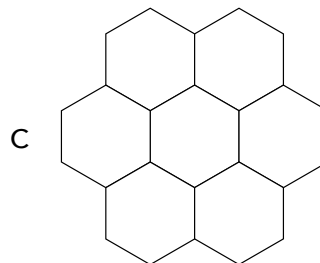
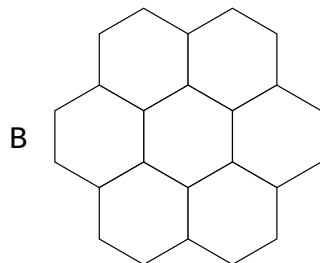
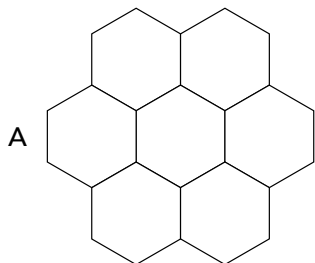
Elements:

A. Al, C, Ca, Ge, Ne, Ni, Pa

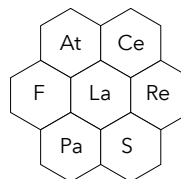
B. Ac, As, Br, Es, Fr, K, Sn

C. Br, Co, Fl, I, N, Ne, Ts

D. Es, Ge, La, N, Te, Ti, Ts



For example:



Answers:

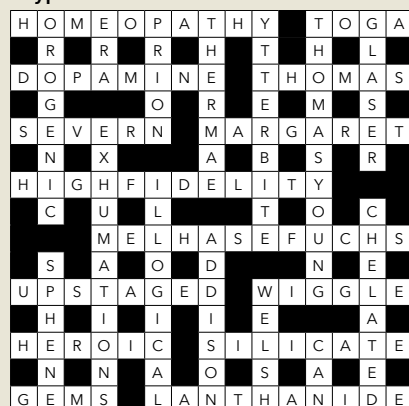
Atlas

Flare

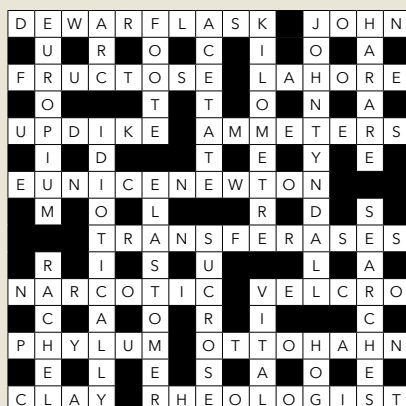
Palace

March 2024 solutions and winners

Cryptic



Quick



Wordoku

The German chemist with interest in new materials with application in green energy and catalysis was (Franziska) EMMERLING

Coronene puzzle

- A. Amber, Babes, Cobra
 B. Acute, Amuse, Clues
 C. Attain, Notate, Stare
 D. Dynes, Linear, Renege

The compound running across was Butane.

March winners

Coronene
 Brian Price
 Weston-super-Mare, UK

Wordoku
 Sue Tilstone
 Congleton, UK

Cryptic crossword
 A. Ford
 London, UK

Quick crossword
 A. Tucker
 Bristol, UK