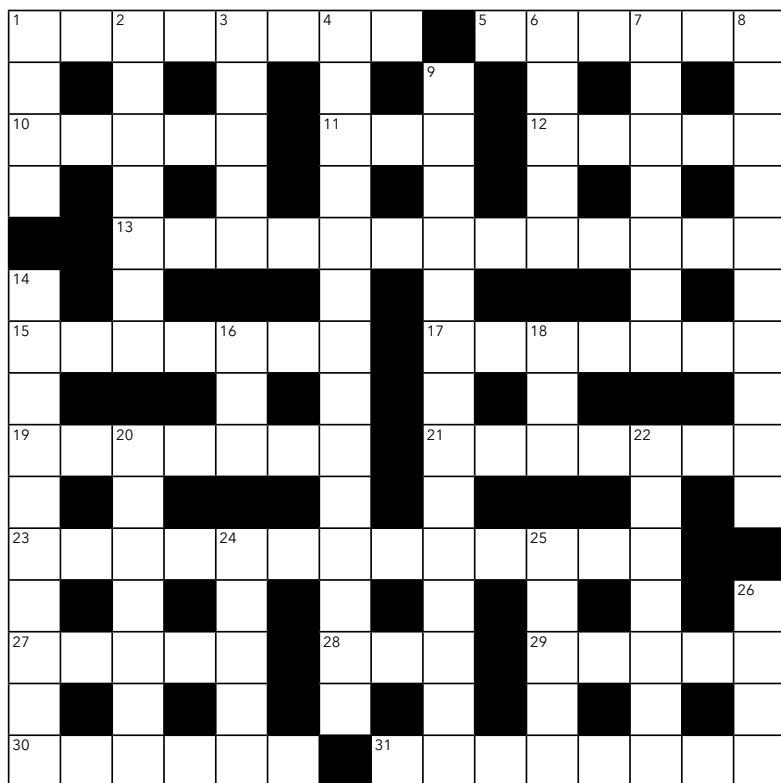
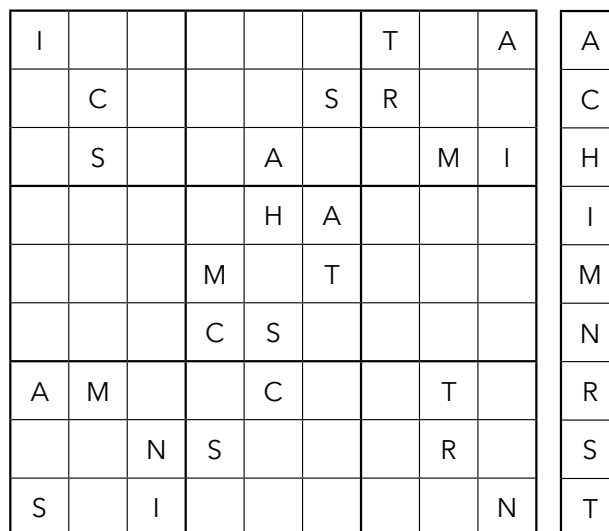


November 2022 crossword



November 2022 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, one of the overall diagonals can be rearranged to give the name of an artificial sweetener.

Cryptic

Across

- 1 See 17 Across
- 5 Rushes a little towards deep space on return (6)
- 10 Partial revolt angers physicist (5)
- 11 Regularly declaim old priest (3)
- 12 Some pain diagnosed in the country (5)
- 13 Items required for pressing engagements? (7, 6)
- 15 Polymath encountered in clamber to the summit (7)
- 17, 1 Across Engineer newer tolerances for the physicist (6, 1, 8)
- 19 Making mountains out of Gen Y or nothing? (7)
- 21 I trade a novel to broadcast (7)
- 23 See 2 Down
- 27 Borat expects some to speak (5)
- 28 Group aspect oddly ignored (3)
- 29 Son that is developing dye (5)
- 30 Neat collection of animals (6)
- 31 HIJKLMNO (5, 3)

Down

- 1 See 6 Down
- 2, 23 Across Scientist who spent nights at the Palladium? (7, 4, 9)
- 3 Muse about 27 across (5)
- 4 On arrangement smash tricycles in the science lesson (9, 5)
- 6, 1 Down Olive prim around creator of the periodic table (5, 4)
- 7 Tolerates sure end surprisingly (7)
- 8 Smashed season's top rocks (10)
- 9 Suited for the Amazons? (6-8)
- 14 Poor cliché about changing colour (10)
- 16 Little hole found on the face. Twice (3)
- 18 Fellow returns to show willing (3)
- 20 Muriate of potash? (3, 4)
- 22 Seaman takes a form of iodine for forgetfulness (7)
- 24 Tungsten-tipped heel that is usually round (5)
- 25 Energetic unit of the Royal Marines? (5)
- 26 Some folk need a joint (4)

Quick

Across

- 1 City whose nearby island prison incarcerated 21 Across for 18 years of a 27-year term (4, 4)
- 5 Piles, or abstract data types in computer science (6)
- 10 Artifact (5)
- 11, 12 Across Japanese physicist who won a Nobel prize for work on electron tunnelling (3, 5)
- 12 See 11 Across
- 13 Treatment with O₃ (13)
- 15 See 1 Down
- 17 See 1 Down
- 19 See 26 Down
- 21 Co-recipient of the 1993 Nobel peace prize (7)
- 23 The E in EPNS, when referring to an alloy often used in cutlery (13)
- 27 Discourage (5)
- 28 The London ____, also known as the Millennium Wheel (3)
- 29 Ankle bones (5)
- 30 Effluvium (6)
- 31 Organic compound named after the Greek for 'I shine' due to its lustre (8)

Down

- 1, 15 Across, 17 Across Swedish-German chemist after whom a green pigment (CuHSAsO₃) is named (4, 7, 7)
- 2 Ingredient of many consumer products that is associated with deforestation (4, 3)
- 3 Vehicle device for measuring a driver's activity (5)
- 4 Chemist who discovered thallium using flame spectroscopy (7, 7)
- 6 Eighth letter of the Greek alphabet (5)
- 7 *Sparkling* _____, crime novel by Agatha Christie (7)
- 8 Location of experiments in a school (7, 3)
- 9 Author of *The History and Adventures of an Atom* (6, 8)
- 14 Dutch microscopist, the first to describe red blood cells (10)
- 16 Unit of geologic time (3)
- 18 Fowl (3)
- 20 Resistance of an object to a change in its velocity (7)
- 22 Advocate (7)
- 24 Purr (5)
- 25 Sum (5)
- 26, 19 Across Physicist after whom an element is named (4, 7)

November 2022 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

1		Person of eg Welsh or Irish descent (4)
2		Appoint (5)
3		Choose (6)
4		Rostrums (8)
5		Particles discovered by J J Thomson (9)
6		Allowable ranges of variation (10)
7		Inventor of the cyclotron (6, 1, 8)

Quick quiz:

- Who won a Nobel prize for their discovery of a series of elements that led to a new section of the periodic table?
- Which US scientist won a Nobel peace prize as well as a Nobel prize in chemistry?
- Which British biochemist won the Nobel prize in chemistry twice?
- Who is the only British woman to have won a Nobel prize in any science, and what for?
- Complete the following quote from Alfred Nobel:
'If I have a thousand _____ and only one turns out to be good, I am satisfied.'

Solutions: 1. William Ramsay (discoverer of noble or inert gases) 2. Linus Pauling 3. Frederick Sanger the structures of important biochemical substances) 5. Ideas

Entry form

There are four prize puzzles on this page: cryptic crossword; quick crossword; wordoku; and science scramble. 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 November 2022**. The winners of this month's puzzles will be published in the December 2022 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).

November 2022 Word grid

Use the element symbols from the panel on the right to complete the word grid below.

			I	
La		Ti		O
	I	S	O	
				At
H	U	S		

As	B
Ca	Es
F	Fe
He	N
Ne	Tl

October 2022 solutions and winners

Cryptic

S	T	O	P	R	E	L	A	T	I	V	I	T	Y
E	A	E	Y	I	O	I							
I	M	B	U	E	D	S	O	D	A	L	I	T	E
P	L	S	E	E	U	R							
L	E	C	I	T	H	I	N	S	Y	N	T	A	X
R			I	K		T							
A	D	O	L	F	V	O	N	B	A	E	Y	E	R
V	T			A	E								
A	N	D	E	R	S	A	N	G	S	T	R	O	M
A	R			A	E								
G	U	I	D	E	S	P	O	L	Y	M	E	R	S
T	R	L	H	I	E	C							
G	I	G	A	W	A	T	T	N	I	M	B	U	S
L	F	N	H	E	E	R							
H	I	S	T	O	G	R	A	M	S	O	Y	A	

Quick

A	L	U	M	D	O	C	T	O	R	A	T	E	S
I	A	Y	A	A	A	L	U						
S	T	A	S	I	S	L	I	T	H	A	R	G	E
H	E	P	C	E	B	E							
D	I	S	R	A	E	L	I	S	T	A	I	N	S
U		P	U		M	O							
M	A	R	Y	S	O	M	E	R	V	I	L	L	E
E	I			H	N								
W	I	L	L	I	A	M	W	H	E	W	E	L	L
S	E			O	O								
P	O	T	A	S	H	L	I	M	E	K	I	L	N
C	S	A	F	E	A	L							
T	H	R	I	L	L	E	R	T	A	R	T	A	R
O	N	M	A	E	S	B							
P	R	O	G	R	A	M	M	E	R	T	O	Y	S

Wordoku

The catalysis researcher was Lutz ACKERMANN

Science scramble

1 Can; 2 Scan; 3 Canes;
4 Cleans; 5 Lancers;
6 Falcons; 7 Frances Arnold.

C	Ar	B	O	N
H		Re		I
I	S	At	I	N
C		He		Ni
K	I	S	S	Es

October winners

Science scramble
David Cooke
Gourock, UK

Wordoku
Marco Ferreira
Livingston, UK

Cryptic crossword
Tanja Van Mourik
Leven, UK

Quick crossword
Nick Gudde
Windlesham, UK