

### August 2021 wordoku

						U	E	I	B
			E	Y		M		R	E
	M		R						I
		I	L				M		L
L		M				E		Y	M
	U				Y	S			R
					L		Y		S
M		L		S	R				U
S	I	U							Y

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 element, a radical cation of which was synthesised for the first time last year.

### August 2021 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					

### 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 August 2021**. The winners of this month's puzzles will be published in the September 2021 issue, along with the solutions.

Email: [chemistryworld@rsc.org](mailto:chemistryworld@rsc.org)

Name .....

Address .....

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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](http://www.chemistryworld.com/privacy)).

### August 2021 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

Finish (3)

Look after (4)

Style (5)

Encroach (7)

Pause (9)

US biochemist and Nobel laureate (8, 5)

## Cryptic

## Across

- 1 Scientist blew cash surprisingly (8)  
 6 I love to eat this essential element (6)  
 9 Reread that about the pyramids (10)  
 10 Even vaccinee has complaint (4)  
 11 Heavy service? (4)  
 13 Gather cake mix for boss (4, 6)  
 14 Likeness stirred inane protester (14)  
 16 Changes animator's stunt style (14)  
 19 Somehow scans tubes for stuff (10)  
 21 Chokes on jokes (4)  
 22 Green mineral? (4)  
 23 Give martyr alternative measurement (10)  
 25 See 3 Down  
 26 Book about him Helena left out on arrangement (8)

## Down

- 1 Right away alert Eve about lift (7)  
 3, 6 Down, 25 Across Polymath swears about inaction (3, 5, 6)  
 4 Atheist treated boy's oddly ignored condition (9)  
 5 Scientist doing housework extremely differently (7)  
 6 See 3 Down  
 7 Exaggerating maid's rating abroad (11)  
 8 Go on about Nan staying in shape? (7)  
 12 Heated press transformed workbook (11)  
 15 Madam's hit upset economist (4, 5)  
 16 Urinate form of amino acid (7)  
 17 Free guano regularly found around China (7)  
 18 I endlessly ranged around middle African country (7)  
 20 Element turning up in monograph (5)  
 24 Reclimb oddly ignored tree (3)

## Quick

## Across

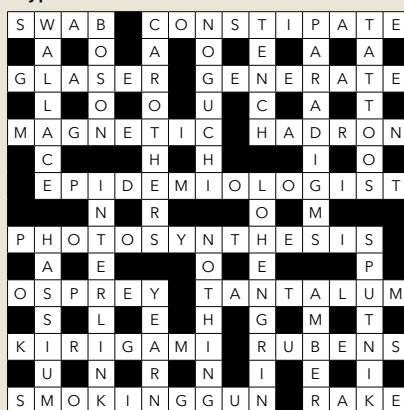
- 1 First period of the mesozoic era (8)  
 6 Hidden or secret, like the language of the alchemists (6)  
 9 Philosopher known for the theory of the four classical elements (10)  
 10 Curve (4)  
 11 US inventor of the safety elevator (4)  
 13 Modern philosopher of science (4, 6)  
 14 Kiln for carbonising wood (8, 6)  
 16 Geysers (7, 7)  
 19 Pain in the kidney (10)  
 21 Law (4)  
 22 Casserole (4)  
 23, 7 Down Nobel laureate who co-developed a method for genome editing (10, 11)  
 25 Wealthy globetrotters (3, 3)  
 26 Anaesthetisation (8)

## Down

- 1 Play again (7)  
 3 Subdivision of geological time (3)  
 4 Home of the Nobel Prize Museum (9)  
 5 Organochlorine compound first prepared and named by Justus von Liebig in 1832 (7)  
 6 Greek fabulist (5)  
 7 See 23 Across  
 8 Type of reactor (7)  
 12 Birds belonging to the genus megascops (7, 4)  
 15 Not scheduled (9)  
 16 Operating room (7)  
 17 Nitrogen-fixing crops (7)  
 18 Polymath of Pisa (7)  
 20 Expert in alchemy (5)  
 24 Juvenile newt (3)

## July 2021 solutions and winners

## Cryptic crossword



## Quick crossword



## Wordoku

The interdisciplinary chemist was Thomas O'HALLORAN

## Science scramble

- 1 Can  
 2 Cain  
 3 Niacin  
 4 Incendiary  
 5 Sir Henry Cavendish

## July winners

Science scramble  
 Steven Strawson  
 Wokingham, UK

## Wordoku

Helen Smalley  
 Reading, UK

## Cryptic crossword

Mary Wood  
 Lausanne, Switzerland

## Quick crossword

Jim Murdoch  
 Solon, US

The ether is showing signs of being strongly contaminated with peroxides. The worst thing the PhD student could do is distil the contaminated ether to recover the solvent, as the peroxides will be concentrated down into a shock-sensitive, explosive solid. Due to the risk of explosion, this bottle should not be opened for testing. Ethers without clear visible signs of contamination can be tested using a commercially available peroxide test strip, or by adding some to a mixture of ferrous sulfate and potassium thiocyanate - a blood red colour means peroxides are present. It is best to dispose of slightly peroxidised ethers before they become more hazardous. In cases where the ether is strongly contaminated, seek expert advice from a waste disposal company.

Mark Foreman works in the nuclear chemistry and industrial materials recycling section at Chalmers University of Technology, Sweden.

## On the spot

