

October 2021 wordoku

		S		E			N	
			I			A	G	
A	I			N				M
		G			S			
			R			I		
S				U			E	A
	N	M			E			
	R			I		N		

A
E
G
I
M
N
R
S
U

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 a metalloid element.

October 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					27				28				
29								30					

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 October 2021**. The winners of this month's puzzles will be published in the November 2021 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).

October 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

Beer (3)

Heavy metal (4)

Listed (6)

Heat treated (8)

Russian chemist and classical composer (9, 7)

Cryptic

- Across**
- 1, 1 Down Strongman reads about Swedish physicist (6, 8)
 - 4 Get manic around drawing (8)
 - 10 Roger upset city biochemist (5, 4)
 - 11 Some reindeer are really not so common (5)
 - 12 Geek once hit help abroad (11)
 - 14 Anfield oddly ignored nothing (3)
 - 15 Physical chemist juggling oranges (7)
 - 17 A bit of extreme tickling can make you sick (6)
 - 19 Surprisingly told an English chemist (6)
 - 21, 3 Down Heady actor broadcast electron beam (7, 3)
 - 23 Fool any susceptible stranger initially (3)
 - 24 Neutrinos go wild fertilising? (11)
 - 26 I rock boat for life (5)
 - 27 Aim to turn cerium into another element (9)
 - 29 Smarter receiver I lost around Lima (8)
 - 30 Letters about remote heavenly body (6)

Down

- 1 See 1 Across
- 2 Oscar leaves cardio workout to physicist (5)
- 3 See 21 Across
- 5 I left Annie to prepare something aromatic (7)
- 6 Never recent fashion for HQ? (5, 6)
- 7 Turned into an art director (9)
- 8 Go around shape (6)
- 9, 20 Down Prancer endlessly tiptoed around the compound (6, 7)
- 13 Wildly genial thing, this little songster (11)
- 16 Rock playing teaspoons? (9)
- 18 Converted beer mess into converter! (8)
- 20 See 9 Down
- 21 Copies scone left around (6)
- 22 Be calm about wine (6)
- 25 Compound found in box I'd emptied (5)
- 28 Oddly ignored Pierre's anger (3)

Quick

Across

- 1 Bowl normally used with a pestle for grinding and crushing (6)
- 4 _____ acid, old name for Phenol (8)
- 10 Organic compound with a planar heterocyclic structure, formula $C_3N_2H_4$ (9)
- 11 French writer regarded as the first philosopher of science (5)
- 12 Hyoscine (11)
- 14 Harden (3)
- 15 German scientist and physician who found a cure for syphilis in 1909 (7)
- 17 See 26 Across
- 19 See 1 Down
- 21 Last part (4, 3)
- 23 Greek letter (3)
- 24 Quark flavour quantum number (11)
- 26, 17 Across American biochemist, sci-fi writer and populariser of science (1920-1922) (5, 6)
- 27 Iron ore (9)
- 29 Conurbation around north-east England, previously having much heavy industry (steel and chemicals) (8)
- 30 Rots (6)

Down

- 1, 19 Across Magnetic field expulsion from a superconductor when cooled below its critical temperature (8, 6)
- 2 Pachyderm (5)
- 3, 9 Down Israeli crystallographer who shared the 2009 Nobel prize in chemistry for work on the ribosome (3, 6)
- 5 United States of _____ country bordering Mexico and Canada (7)
- 6 Disinfectant or antibiotic, for example (11)
- 7 Carbonate sedimentary rock (9)
- 8 Bring into being (6)
- 9 See 3 Down
- 13 Author of *Uncle Tungsten: Memories of a Chemical Boyhood* (6, 5)
- 16 A substance that has had component(s) removed after separation (such as in naphtha cracking) (9)
- 18 Legendary Greek king of Ithaca (8)
- 20 Set fire to (7)
- 21 Kindling (6)
- 22 Metamorphic rock (6)
- 25 Immunoassay technique (acronym) (5)
- 28 Subdivision of an epoch in geology (3)

September 2021 solutions and winners

Cryptic crossword

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

Quick crossword

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

Wordoku

The pigment was
VERMILION

Science scramble

- 1 Ma
- 2 Ram
- 3 Gram
- 4 Marge
- 5 Programmer
- 6 Maria Goeppert Mayer

September winners

- Science scramble**
M Barrett
Richmond, UK
- Wordoku**
T Sinclair
Baldersdale, UK
- Cryptic crossword**
Benjamin Chalmers
Mainz, Germany
- Quick crossword**
Alan Bodley
Orpington, UK

Mark Foreman works in the nuclear chemistry and industrial materials recycling section at Chalmers University of Technology, Sweden. Add table sugar (sucrose) to the concrete inside the machine, then set it rotating again. Sucrose greatly slows the rate at which cement hardens and will give the roadworkers more time to work out how to tip out the contents of their machine. The addition of sucrose to a mixture of cement and water greatly increases the concentration of silicon in the water. NMR studies suggest that no sucrose-silicon complexes are present in solution, but it is thought that the sugar poisons the setting process by adsorbing onto surfaces of the hydrating tricalcium silicate particles.

On the spot

