

June 2018 wordoku

		O		A		M	T	N	A
M		A	N		C			O	C
		I			O				E
N	M								I
	A		E		M		S		M
O							E	M	N
			M			I			O
C			O		S	T		A	S
A	O	S		N		C			T

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 into the name of an alkaloid.

June 2018 word grid

S	Ho	P
S	H	O
P	Re	Ce

Prize entry: Using each element symbol in the grid only once, combine them together to make a single word of 12 letters.

Word.....

Just for fun: Construct as many other words as you can using a minimum of three symbols, and each symbol only once.
6 words: OK
9 words: Good
12+ words: Excellent

Entry form

There are four prize puzzles on this page: crossword (cryptic answers only); wordoku; molecule search; and word grid. For each puzzle, a winner will be selected from all the correct entries received and awarded a £25 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 either post or email this page with your completed entries to us by **20 June 2018**. The winners of this month's puzzles will be published in the March 2018 issue, along with the solutions.

Chemistry World puzzles, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK
Email: chemistryworld@rsc.org

Name

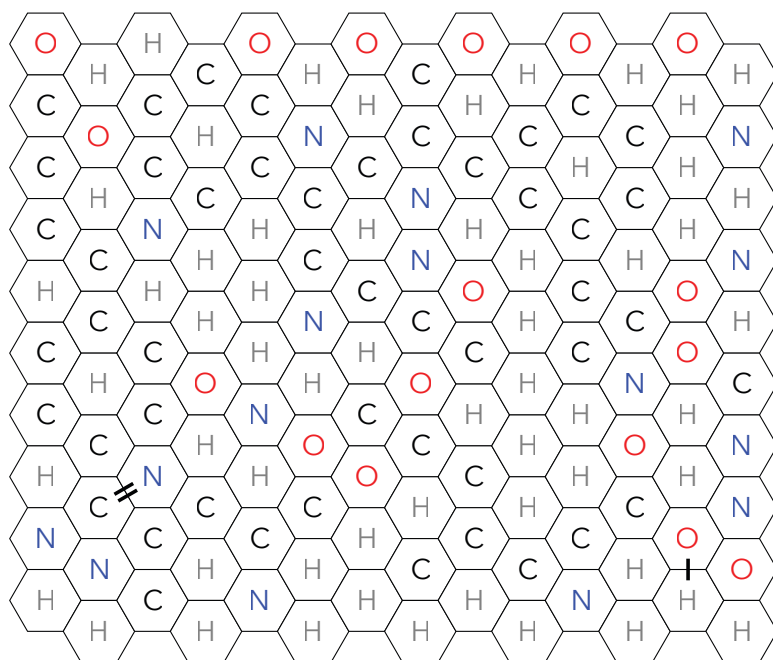
Address

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).

June 2018 crossword

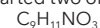
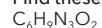
1		2		3	4		5		6		7		8
				9									
10									11				
12					13								
													14
15		16					17		18				
19					20		21						
	22			23					24		25		
26													
27						28							
29										30			

June 2018 molecule search



Connect atoms in adjacent cells using single or multiple bonds to reveal the hidden molecules. The hexagonal grid necessitates some minor distortion of bond angles - for example in five-membered rings.

Find these four molecules - we've already started two of them for you.



Clues: These four molecules are essential to human life, especially to those humans who want big muscles and nice hair. Although all four are neutral molecules, you will have to put charges on some of the atoms.

Cryptic (prize entry)

Across

- See 7 Down (4)
- Short email about being at constant temperature (10)
- I smashed cab glass for a source of phosphate (5, 4)
- Left inside unit in the dark (5)
- A bit of strychnine liquidates returning Russian leader (5)
- LOL-scam about initially unidentified creatures (8)
- No hype about right baryon (7)
- Massage girl with measles? (7)
- Roman upset oddly chic inventor (7)
- Greys around New York working well together! (7)
- Struggle with fish? (8)
- Noah left around old fire extinguisher (5)
- Boron soon transmutes to another particle (5)
- Ed into first half of zither playing for Italian composer (9)
- Perturbed, I'd prepared desserts (10)
- Sang about hitch (4)

Quick (just for fun)

Across

- Charged particles (4)
- 26 Down Image displayer with electron guns and a phosphorescent screen (7, 3, 4)
- African American chemist who developed an injectable oil extract for treatment for leprosy (5, 4)
- British painter's working name, actual name Hannah Gluckstein (5)
- See 23 Down (5)
- One-movement musical work of contrasting moods (8)
- 17 Across English crime writer of *Strong poison* (7, 1, 6)
- See 15 Across (1, 6)
- Cuspiders (7)
- German city close to Berlin (7)
- Bird whose nests are made into soup (8)
- Fabric used for veils and tutus (5)
- Natural pigment, yellowish-brown (5)
- Storyteller (9)
- Positive and negative things used to carry current (10)
- Metallic element (4)

Down

- First Minister converts hole in biome into temporary accommodation (6, 4)
- 4 Down Atmospheric chemist soon distributed US salmon (5, 7)
- See 2 Down (7)
- Endlessly regulate around tile arrangement (7)
- State a little menu guidance (5)
- 7, 1 Across Local summers changed a chemical constant (9, 4)
- Instrument that sounds like a steal! (4)
- Cronies disturbed a plot (8)
- Granny confused main palaeontologist (4, 6)
- Roy slips over fatally final decomposition (9)
- Extremely bewildering in haze around North African city (8)
- I recycle diode's salts (7)
- Inject some gassy Ringer's solution (7)
- Nerve missing boat around Ulan Bator! (5)
- Lout turns north for English airport (5)
- Right away Debra returned and retired (4)

Down

- German chemist and physicist, co-discoverer of rhenium (3, 7)
- Aquatic larva or nymph of a dragonfly, mayfly or stonefly (5)
- 19th century American botanist, supporter of Darwin (3, 4)
- Large bag (7)
- French artist famous for his depiction of dancers (5)
- Supporter of Oliver Cromwell (9)
- Wooden crosspiece to connect two animals to a cart or plough (4)
- Protein that stores iron (8)
- Lopsided (10)
- Sustainable (9)
- Rarest naturally-occurring element in the Earth's crust (8)
- Italian city (7)
- Vase (7)
- 12 Across Reaction whose rate depends on the concentration of only one reactant (5, 5)
- Discoverer of the role of acetylcholine as an endogenous neurotransmitter (5)
- See 3 Across (4)

May 2018 solutions and winners

Cryptic (prize entry)

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

Quick (just for fun)

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

Wordoku

The Japanese geochemist was Katsuko SARUHASHI

Word grid

The nine-symbol word was HALOGENATION

May winners

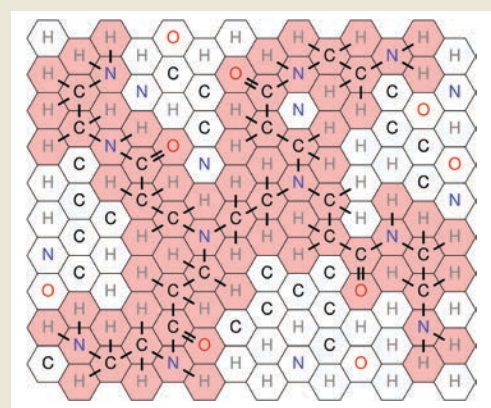
Molecule search
Angela Harrison,
Hull, UK

Wordoku
Christine Price,
Cowes, UK

Word grid
Gordon Tipler,
Bridgnorth, UK

Crossword
Mervyn Lewis,
Bristol, UK

Molecule search



The molecule was a generation 1 poly(amidoamine) or PAMAM, the core of a dendrimer made of repetitively branched amide and amine subunits. Dendrimers like this could deliver drugs or genes into living cells.

Answer to On the spot
There are many reputable and respected journals operating in the chemical sciences. However, so-called predatory journals are becoming more common. These often operate without peer review and fail to meet expected standards in editorial practice. As a result, the papers they publish are largely ignored. Where you choose to publish is an important measure of your research quality. You can only publish your work in a journal once, so take care to identify the best journal for your work, for example by talking to an experienced colleague or looking to see which journals are cited in literature reviews. The website thinkchecksubmit.org provides a checklist to help researchers identify journals that they can trust.

Emily Skinner is a publishing ethics specialist at the Royal Society of Chemistry

On the spot

