## March 2023 crossword



March 2023 wordoku

|  |  |  |  | $C$ |  | $R$ | $H$ | $D$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $H$ |  |  | I |
| D |  | I |  |  |  | B |  |  |
|  | C | D | R | L |  |  |  |  |
|  |  | S |  |  |  | $H$ |  |  |
|  |  |  |  | $D$ | S | C | R |  |
|  |  | C |  |  |  | L |  | R |
| I |  |  | S |  |  |  |  |  |
| A | S | $H$ |  | $R$ |  |  |  |  |


| A |
| :---: |
| $B$ |
| $C$ |
| $D$ |
| $H$ |
| I |
| L |
| $R$ |
| $S$ |

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 ninesquare cell). Once solved, one of the overall diagonals can be rearranged to give the surname of a UK chemist working in the field of molecular imaging.

## Cryptic

## Across

1 Oscar behind great cocktail syrup (6)

4 Heartless Mary follows two drinks with a card game $(3,5)$
10, 7 Down Letters about local rogue miming for the telegrapher $(9,7)$
11 More certain about Sue after treatment (5)

12 I play horns right for the chemist (7)
13 A particular form of iron had I left (6)
15 Sing about the drinks (4)
16 Reporting a con running right away abroad (10)
18 Bravo-leaving any inedible concoction can produce a colour $(7,3)$
20 Element none will transmute (4)
23 A little Siberian peninsula? Not really (6)
24 A book for anaesthetists? (7)
26 Is initially nuts about the groups (5)
27 We toil too around the pharmacologist $(4,5)$
28 Light surprisngly rare find $(5,3)$
29 Modified iodine stain reveals the compound (6)

## Down

1 First aid rang groom about staff arrangement (10)
2 See 25 Down
3 I'd rewritten short account about India. It was vitriolic! (6)
5 A coy hesitation around the compound (14)
6 Biden leaves parking to local (8)
7 See 10 Across
8,14 Down Ingenious alpha rays transformed by Russian scientist $(4,10)$
9 Gangster arranging cheap loans? Nope! $(8,6)$
14 See 8 Down
17 Endlessly visit bars restyling facial hair (8)
19 Short nickel fibre perhaps $(2,5)$
21 Could be copper in the kettle (7)
22 Underwear obtained from a Texas Mall Store (6)
25, 2 Down Arguing about airy astronaut $(4,7)$

## Quick

## Across

1 Element discovered in seaweed (6)
4 Hydrocarbon first isolated from carrots (8)

10 Plant-derived material that can be polished to a high gloss (9)
$11 \theta$ (5)
12, 23 Across Japanese-American chemist known for their work in cosmochemistry $(7,6)$
$13 \mathrm{C}_{2} \mathrm{H}_{4}$ (6)
15 Insects from which formic acid was first isolated (4)
16 Element first isolated from urine in 1669 by the German alchemist Hennig Brand (10)
18 Parasitic trematode $(5,5)$
20 Author of The Periodic Table (4)
23 See 12 Across
24 A portion of a substance taken for chemical analysis (7)
26 Wellcome ____-, a provider of grants for scientific research (5)
27 Concept which Charles Darwin is most famous for (9)
28 Science Discovery Centre in Widnes, UK (8)

29 Snakes (6)

## Down

1 Ravenous (10)
2 ASCII file, for instance (4, 3)
3 Diplomatic representative of the pope (6)
5 Nuclear physicist awarded the Nobel peace prize in $1975(6,8)$
6 German nuclear chemist (4, 4)
7 ____-_-Anne Ormerod, English entomologist (7)
8 Geochronological units (4)
9 Crime novelist who wrote Strong Poison (7, 1, 6)
14 Helpers (as in a lab for instance) (10)

17 Containing silver (8)
19 Overpass (7)
21 Well educated (7)
22 State of matter (6)
25 Relating to the ear (4)

## March 2023 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 | Secret Agent (3) |
| :--- | :--- |
| 2 | Lively (4) |
| 3 | Aerosol (5) |
| 4 | Appeals to a deity (7) |
| 5 | Fruit (9) |
| 6 | Nobel prize-winning <br> chemist (4, 5, 9) |

## Quick quiz:

1. The electron was the first subatomic particle to be discovered. Who discovered it and in which year?
2. Which subatomic particle is the subject of the poem Cosmic Gall by American writer John Updike?
3. Which subatomic particle was predicted by (and named after) a British physicist in 1964 and detected by the Large Hadron Collider in 2012?
4. The 1977 album Quark, Strangeness and Charm was released by which English rock band?
5. Which Italian physicist, after whom both an element and subatomic particle are named, is quoted as saying:
'If I could remember the names of all these particles I would have been a botanist.'



## 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 March 2023.
The winners of this month's puzzles will be published in the April 2023 issue, along with the solutions.
Email: chemistryworld@rsc.org

Name $\qquad$

Address $\qquad$

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).

## March 2023 Word grid

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


| $B$ | Er |
| :---: | :---: |
| He | K |
| Lu | N |
| P | Ra |
| Sm | $U$ |

February 2023 solutions and winners


Quick


Wordoku
The anxiety drug was TRAZODONE
Science scramble
1 Am, 2 Aim, 3 Lima
4 Animal, 5 Laminae
6 Kamala Sohonie


## February winners

Science scramble
James Irwin
Hitchin, UK
Wordoku
Patricia Blakemore Walsall, UK

Cryptic crossword
Colin Porter
Ashford, UK
Quick crossword
Aloisia King
Belfast, UK

