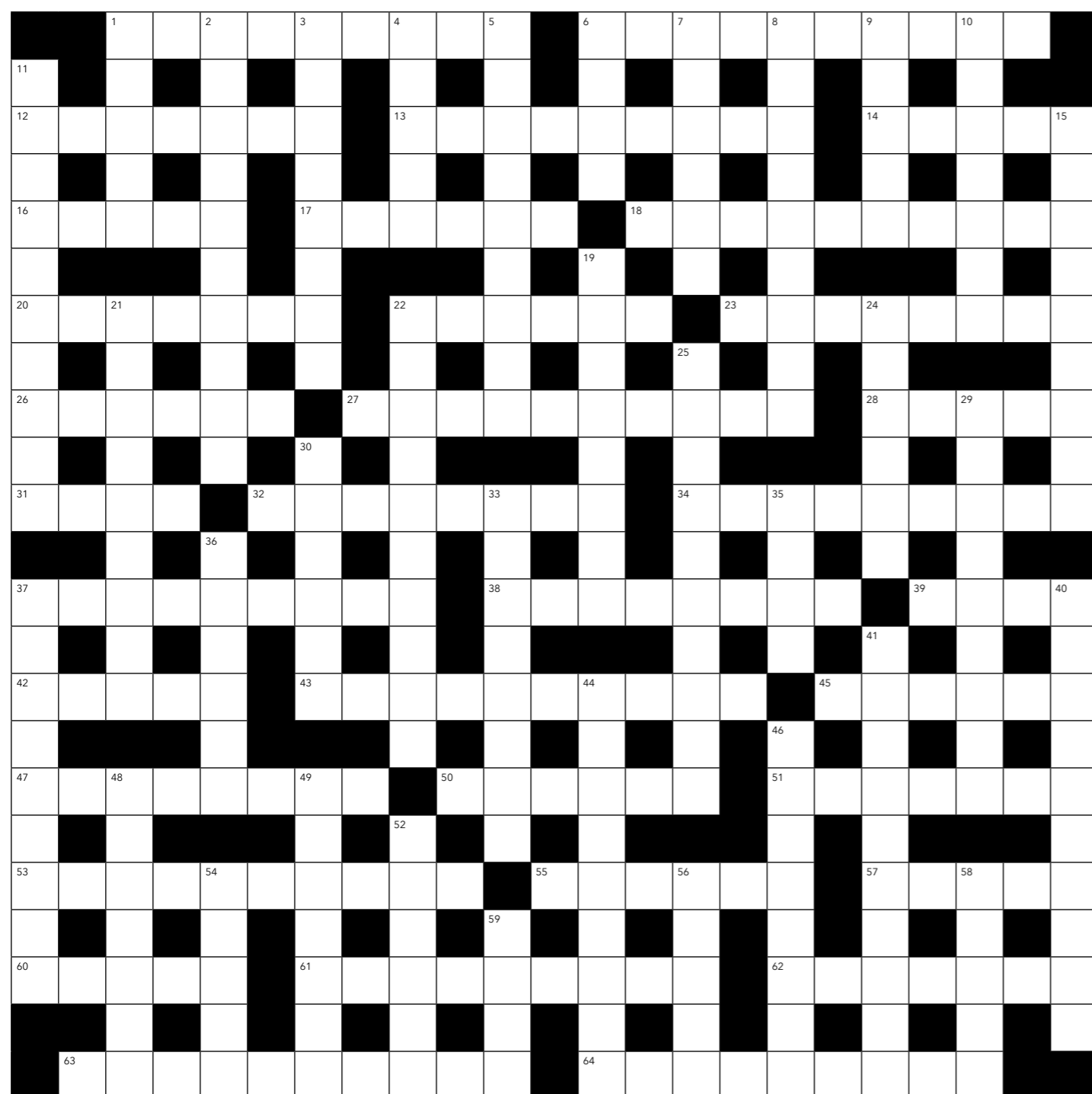


December 2021 Jumbo CrOsSWORd



Entry form

This month there are only two prize puzzles: the cryptic elements crossword and the quick regular crossword. For each crossword, a winner will be selected from all the correct entries received. Each winner will receive a hamper just in time for Christmas.

You can enter both of the prize draws, but each entrant is only eligible to win one puzzle prize.

Please enter your details and email a scan or photograph of this page with your completed entries to us by **14 December 2021**. The winners of this month's puzzles will be published in the January 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).

Prize entry 1: Cryptic elements crossword

Each crossword square can have one or two letters, which must be letters of an elemental symbol, or the letters D or T (for deuterium or tritium). For example, Dalton could be written D(AI)TON.

Across

- 1 See 63 Across
- 6 On arrangement, Ford tests radar scientist (6, 8)
- 12 Oh, I refuse to play this American station (9)
- 13 Cringe about endless cocaine causing cancer (12)
- 14 Clocks the posters (7)
- 16 Teacup so broken, repurposed into another piece of kitchenware (8)
- 17 Organ included in skin test in England? (9)
- 18 Puzzler rearranges verbal circuits (14)
- 20 Ray back north after a makeover (9)
- 22 Spreads befitting barriers you might say (10)
- 23 List ferries shifting agricultural supplies (11)
- 26 Fashion scout oddly traps the vagabonds (8)
- 27 Sick photos upset the bridge game (10)
- 28, 1 Down Physicist arranged newer tolerances (6, 1, 8)
- 31 Weak part of bridges of Tokyo (4)
- 32 Engineer once costing authorities (11)
- 34 I revisit sites abroad for properties (13)
- 37 American writer rearranged unspoilt cairn (5, 8)
- 38 Boss cross poet about the letter drops? (9)
- 39 Something lofty in the latticework (5)
- 42 Run around Uncle Sam for a heavenly body? (6)
- 43 Surprising sit-in tuition for discerning ethicist (12)
- 45 Getting back together on the island (7)
- 47 Noticed his turning decadent (10)
- 50 Ordered neat suite made of alloy (9)
- 51 Weapons to wound women? (9)
- 53 Science of modern yachts I'm developing? (14)
- 55 Medical practitioner treated spare tooth right away (9)
- 57 Spirits in club I left out (6)
- 60 Make money from Caracas hinterland (4, 2)
- 61 Sits a final test, getting endless stick about maths (10)
- 62 Egging on oddly ignored duet playing viola (9)
- 63, 1 Across Mechanics rule, but not the first! (7, 6, 3, 2, 6)
- 64 Pro costs eye alteration for binocular vision (11)

Down

- 1 See 28 Across
- 2 Tools not bad around cell (11)
- 3 Computer commands misuse clock somehow (11)
- 4 Inspire intuition reportedly (6)
- 5 Top technician developed a way to quit smoking (8, 5)
- 6 Borderline finger break (6)
- 7 Perhaps apply rouge to nose? Very suggestive! (9)
- 8 Something fishy about pert haircuts (12)
- 9 Nerd in trouble, making a meal of it (6)
- 10 Swedish biochemist realises unit needs treatment (4, 8)
- 11 Cousin faints around such darkenings (12)
- 15 Medical implements test pooches' initial stamina after a fashion (12)
- 19 On arrangement etherises cat and empties bladder (12)
- 21 Fun to tow Oscar around the countryside (3, 2, 4)
- 22 I turn pro's profits into drinks (5, 7)
- 24 Stable in middle of garret reportedly (9)
- 25 Crib sheet about oddly strained mineral (13)
- 29 Modified a guitarist's sign (11)
- 30 Japanese bacteriologist out of fashion we hear (7)
- 33 Prepared pepsins in the cold (9)
- 35 Goats cross about initially irritating bees (6)
- 36 Turns down sister's cocktail (7)
- 37 Nice aunt smashes hut. Unreal! (11)
- 40 Stall fools canines surprisingly (12)
- 41 Volcano smashed a French utopian tomb (5, 8)
- 44 Whispers about town's oddly ignored possessions (10)
- 46 Skin complaint is so itchy - starts healing after treatment (10)
- 48 Put an end to row about TV here (9)
- 49 I redesign seniors' purifiers (8)
- 52 Nice kit broadcast a type of energy (7)
- 54 Monday-ordered generator (6)
- 56 Vague course set around Beachy Head (7)
- 58 Extremely inhuman duty turned messy (6)
- 59 Stoned around the seaport (6)

Prize entry 2: Quick crossword

This one is your regular type of crossword, no element symbols are needed.

Across

- 1 Discoverer of the electron (1, 1, 7)
- 6 SI units of radioactivity (10)
- 12 Intermingled (7)
- 13 Chemicals used in a reaction (9)
- 14 Single piece of information (5)
- 16 'I often think in _____' (Albert Einstein) (5)
- 17 Units of mass (6)
- 18 Plant pigments (10)
- 20, 42 Across Danish polymath who gave his name to the first law of crystallography (7, 5)
- 22 Groups containing two acyl groups bound to nitrogen (6)
- 23 Bright yellow compound found in turmeric used as a food colouring (8)
- 26 Harm (6)
- 27 American singer, actor and comedian (4, 6)
- 28 Channel on the surface of the moon (5)
- 31 Rotate (4)
- 32 One of the non-lupac names for benzene-1,3-diol (8)
- 34 Back injections for pain relief (9)
- 37 Isotope of hydrogen (9)
- 38 Lacking colour (8)
- 39 Chelating agent (abbrev) (4)
- 42 See 20 Across
- 43 Text listing of commands for a computer program (6, 4)
- 45 See 46 Down
- 47 Categorise (8)
- 50 Fuel (3, 3)
- 51 Thermodynamic property symbolised by the letter S (7)
- 53 Containing NH₃ (10)
- 55 Elementary particle of half-integer spin (6)
- 57 Spherical or near-spherical bacteria (5)
- 60 Having prongs like a fork (5)
- 61 Space traveller (9)
- 62 Genus of ants and also the tradename of a laminated composite material (7)
- 63, 6 Down Cleaning apparatus that employs high-frequency sound waves (10, 4)
- 64 Admin (9)

Down

- 1, 52 Down One of the scientists who elucidated the structure of DNA (5, 6)
- 2 Study of poisons (10)
- 3 Language of the Vikings (3, 5)
- 4 Organophosphorus nerve agent (5)
- 5 Tidying (9)
- 6 See 63 Across
- 7 The Chemical History of a _____, a series of six lectures given by Michael Faraday at the Royal Institution (6)
- 8 Revolting (9)
- 9 Radioactive noble gas (5)
- 10 Alkali metal used in the treatment of bipolar disorder, and the title of a single by Nirvana (7)
- 11 Ancient Greek philosopher born in Elea, Italy (10)
- 15 Insects that use mud or similar material to build their nests (5, 4)
- 19 Economise (8)
- 21 Pulverise (9)
- 22 Alloy of elements 76 and 77 (10)
- 24 Element discovered in 1803 and named after a dwarf planet discovered two years earlier (6)
- 25 Describing a small rocky body orbiting the sun (10)
- 29 North Wales seaside resort (9)
- 30 Array (6)
- 33 Black carbon produced by heating wood in little oxygen (8)
- 35 Greek winged goddess of the rainbow who gives her name to a transition metal (4)
- 36 Subatomic particles (6)
- 37 Drying agent (9)
- 40 Describing a chemist who tests rather than synthesises (10)
- 41 Type of simulation used to model the probability of different outcomes, named after an area of Monaco (5, 5)
- 44 Suffocating gas found in mines (9)
- 46, 45 Across Co-recipient of the 2020 Nobel prize in chemistry for work on Crispr gene editing (8, 6)
- 48 Explosive made of ammonium nitrate and powdered aluminium (7)
- 49, 58 Down One of the scientists who elucidated the structure of DNA (7, 5)
- 52 See 1 Down
- 54 Low point (5)
- 56 Tally (3, 2)
- 58 See 49 Down
- 59 Metal neck ring (4)

November 2021 solutions and winners

Solutions to last month's puzzles and November's winners can be found on page 57.