## Nine Decades Of The Central Science

THIS COMMISSIONED PUZZLE commemorating C\&EN's 90th anniversary was constructed by University of Minnesota chemistry professor George Barany and friends. To work the puzzle online, go to http://cenm.ag/9opuzzle. The solution is on page 92. For other Team Barany puzzles, visit http://tinyurl.com/gbpuzzle.

## ACROSS

1. Italian lover's coo
2. Flame-fancying flier
3. __-jongg
4. Meadow moisture
5. Irish-born character actor Milo 17. Alternative to gray scale 18. Length times height, for parallelograms
6. A nitrile linker?
7. Bohr-ing basis for Schrödinger's cat?
8. Voice below soprano
9. Israeli-made weapons
10. Classic marquee gas
11. Govt. grp. currently directed by Harold Varmus
12. "Pippi Longstocking" creator Lindgren
13. It stretches from Iberia to Siberia
14. "The King and I" kingdom 32. Vehicles for Duke Ellington 33. Field that provides confirmations of life conformations
15. Scheele (1784) crystallized citric acid from these
16. Not us
17. Fancy-schmancy
18. Med. sch. subj.
19. Johnny __, last major-league pitcher to face Babe Ruth and first to face Jackie Robinson
20. Baba__ (Gilda Radner's SNL character)
21. It is mostly granulated silicon dioxide
22. Really small field
23. Alarmed one?
24. Garam __ (Indian spice mixture)
25. Bigfoot's shoe size?
26. Bahamas vacation spot 60. Calvin or B, familiarly 61. Produce protection
27. Alamos preceder
28. Go ballistic
29. A little work
30. PowerPoint presentation pieces 69. Einstein, Lewis, Pauling, or Woodward, e.g.
31. One of its two possible isomers is normal
32. Change a scientific manuscript or grant proposal
33. Safe, sustainable studies at 560 nm ?
34. Before: Abbr.
35. Abbr. on some invitations 81. Former Israeli prime minister Barak or Olmert
36. Head of France
37. Old MacDonald's refrain 86. It may be bound by a porphyrin 87. Grazing ground 89. Its products may be in the pipeline
38. Mary Tyler Moore's old boss 96. They might be tight or loose 97. Uranus, Neptune, Pluto, (eponyms for 85-Down \#92 to 95) 102. Insistence on precise standards 103. Pooh's pal
39. New York theater award 106. Arabic for "commander" 107. Ella Fitzgerald's singing style 108. Movement galvanized by Rachel Carson's "Silent Spring"
40. Grammy-nominated Macy Gray song (2000) or a modest response to kudos
41. Not diluted
42. Undergo a transformation 116. "__Macabre" (Saint-Saëns work)
43. Govt. grp. that once subcontracted work to Edward Snowden
44. Number for 85-Down, 25-Across 119. Lost buoyancy
45. Daisy also called a marguerite

## DOWN

1. Chef's chapeau
2. Liar Joe in old TV car ads
3. Win by ___ (prevail, barely)
4. High I.Q. society
5. Muesli morsel
6. Concise note from the boss 7. Tournament format in chess, golf, or tennis
7. Behavioral oddity
8. One-time name of 85 -Down that honored Nobelist Otto, who codiscovered nuclear fission with Lise Meitner
9. Med. technique with contrast agents and "panic buttons" 11. Agcy. spawned by the Manhattan Project, once chaired by Seaborg 12. Takes up the challenge 13. Mexican actress Dolores or Texas site of Laughlin Air Force Base
10. "Love Me or Leave Me" singer Ruth
11. Like the smell of pine needles and cedar
12. Poor paper chromatography outcome, perhaps
13. Jungian archetype
14. Job for 89-Down
15. Curie, Dalton, and Gauss, e.g.
16. Rent-__ (Hertz or Avis)
17. Some very popular B'way
shows
18. Lifelong assignment, briefly?
19. Kind of pad
20. Start of an incantation
21. Huntsman home
22. Hitchcock double feature?
23. One who may be an expert on intellectual property
24. Multiple-PC hookup 38. Pottery worker, on occasion 39. "Gee whiz!" 40. Oklahoma tribe 44. Use an optical reader 45. Afflictions
25. Add years to one's life? 48. Gave the go-ahead 49. Not as far from 50. Analgesic or antibiotic, e.g. 52. Weights of unfilled bottles 53. Beethoven's "Für __ 54. Sierra __, a major producer of diamonds, gold, and titanium 55. Per__ (yearly) 56. Italian director of the MIT Senseable City Lab, whose name is an anagram of "trait"
26. Sticker shock inducer at the car dealership: Abbr.
27. "I __": miner's Valentine's Day message
28. Physiologist Jacques who discovered artificial parthenogenesis and was the model for Max Gottlieb in Sinclair Lewis' "Arrowsmith"
29. In the sack
30. Goal for combinatorial
synthesis discovery programs (with
"molecular") as well as for a school
or workplace
31. __-Magnon
32. Dog star
33. Lab denizens, stereotypically
34. __En-Lai
35. Attila's horde
36. Taxol source
37. Berliner's quaff 84. They have their pluses and minuses
38. 25- or 86-Across, or 9-Down, e.g.
39. Where it never rains
40. His head is a large baseball 88. Pupil's place
41. It digests proteins at pH 2 90. Product precursors
91."__Boom-de-ay": vaudeville song
42. Raise reason, maybe
43. "Are you__out?"
44. Stigma
45. Return to equilibrium
46. Schiff's base, e.g. 100. Mom to Whitney Houston or to Draco Malfoy
47. Napoléon's force 104. Arabian sultanate 105. Call's partner 109. Word in some alumnae bios 110. Beethoven prelude 111. Class-conscious org.? 112. Kerfuffle

| 1 | ${ }^{2}$ | 3 | 4 | 5 |  |  | 6 | 7 | 8 | 9 |  |  | 10 | 11 | 12 |  |  | 13 | 14 | 15 |
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| 16 |  |  |  |  |  | 17 |  |  |  |  |  | 18 |  |  |  |  | 19 |  |  |  |
| 20 |  |  |  |  | 21 |  |  |  |  |  | 22 |  |  |  |  |  | 23 |  |  |  |
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| 37 | 38 | 39 | 40 |  |  |  | 41 |  |  |  |  |  | 42 |  |  |  |  |  |  |  |
| 43 |  |  |  |  |  | 44 |  |  |  |  | 45 | 46 |  |  |  |  | 47 | 48 | 49 | 50 |
| 51 |  |  |  | 52 | 53 |  |  |  |  | 54 |  |  |  |  | 55 | 56 |  |  |  |  |
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| 60 |  |  |  | 61 |  |  | 62 |  | 63 |  |  |  | 64 | 65 |  |  |  | 66 |  |  |
| 67 |  |  | 68 |  |  |  | 69 | 70 |  |  |  |  |  | 71 |  |  | 72 |  |  |  |
| 73 |  |  |  |  |  |  | 74 |  |  |  | 75 | 76 | 77 |  |  |  |  |  |  | 78 |
| 79 |  |  |  |  |  | 80 |  |  |  |  | 81 |  |  |  |  |  | 82 |  |  |  |
|  |  |  | 83 | 84 | 85 |  |  |  |  | 86 |  |  |  |  | 87 | 88 |  |  |  |  |
| 89 | 90 | 91 |  |  |  |  |  | 92 | 93 |  |  |  |  | 94 |  |  |  |  |  |  |
| 95 |  |  |  |  |  |  |  | 96 |  |  |  |  |  | 97 |  |  | 98 | 99 | 100 | 101 |
| 102 |  |  |  |  |  |  |  | 103 |  |  |  | 104 | 105 |  |  |  | 106 |  |  |  |
| 107 |  |  |  |  | 108 | 109 | 110 |  |  |  | 111 |  |  |  |  | 112 |  |  |  |  |
| 113 |  |  |  |  | 114 |  |  |  |  | 115 |  |  |  |  |  | 116 |  |  |  |  |
| 117 |  |  |  |  | 118 |  |  |  |  | 119 |  |  |  |  |  | 120 |  |  |  |  |

