

Chemistry Between Us

by Dan Katz (with initial inspiration from Eric Berlin)

Each of the symbols represents the substitution of one two-letter chemical element symbol for another. The gibberish strings are the results of applying three of these transformations to the clue answers:

(AM)PHI(TH)EA(TE)R => FRPHIMGEAPRR	◆ & ☎
A(NO)(RE)XI(AS) => AEUNBXIBR	📁 📁 ℳ
B(LI)ZZ(AR)(DY) => BBAZZCAFE	⌘ ☐ ⌚
M(AS)CU(LI)(NI)TY => MBRCUBASCTY	⌘ 📁 ⌚
(NO)NS(TE)A(DY) => EUNSPRAFE	☐ ℳ ☎
(NO)R(TH)W(AR)D => EURMGWCAD	⌚ ℳ ◆
(RE)(AR)M(AM)ENT => NBCAMFRENT	📁 ⌚ &
(RE)(AS)SIG(NI)NG => NBBRSIGSCNG	📁 📁 ⌚
(TE)CH(NI)CA(LI)TY => PRCHSCCABATY	⌘ ⌚ ☎
(TH)ERMO(DY)N(AM)ICS => MGERMOFENFRICS	☐ ◆ &

Using this, one can determine which two elements are swapped in and out by each transformation. The equations on the bottom suggest adding or subtracting the atomic numbers of the two elements, and since answer phrases usually involve letters rather than numbers, we find the element with the resulting atomic number:

⌘	LI => BA	$56 - 3 = 53$ (I)	⌚	AR => CA	$18 + 20 = 38$ (SR)
📁	RE => NB	$41 + 75 = 116$ (LV)	ℳ	NO => EU	$102 - 63 = 39$ (Y)
📁	AS => BR	$33 + 35 = 68$ (ER)	◆	TH => MG	$90 - 12 = 78$ (PT)
⌚	NI => SC	$21 + 28 = 49$ (IN)	&	AM => FR	$95 - 87 = 8$ (O)
☐	DY => FE	$26 + 66 = 92$ (U)	☎	TE => PR	$59 - 52 = 7$ (N)

Filling these letters into the blanks at the bottom of the page and using the slashes as word breaks gives ILVER INUS RYPTON. These are beheadments of the words SILVER MINUS KRYPTON, and applying the same sort of atomic number math gives us $47 - 36 = 11$, the atomic number of sodium. Since SILVER MINUS KRYPTON gives SODIUM, ILVER INUS RYPTON gives **ODIUM**.

Fun fact: When I went to assemble this solution, I discovered that in my original plan for the puzzle, there was one more transformed word given, using the word MAGNOLIAS. I have no idea how it ended up on the cutting room floor. (But if you think I considered adding it back in post-testing, you're nuts.)