## CHEMICAL IMPROVEMENTS

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I recently purchased a Franklin Crosswords Puzzle Solver (Model CW-40). It is startling to look at this object, the size of a playing card, and watch it carry out tedious searches from an enormous Merriam-Webster vocabulary, with a button-press.

It can be used to improve upon earlier Word Ways investigations. The November 1977 issue presented Darryl Francis's best results at transposals and transadditions to the names of the chemical elements; in February 1978, Jeremy Morse and I independently listed various improvements. I decided to give this problem to Franklin, and in short order found twenty improvements that we had overlooked. (However, the indefatigable Dmitri Borgmann found 12 of these in August 1978.)

AMERICIUM ceramidium
BISMUTH mintbush
CERIUM* uremic
CURIUM Urumchi
EINSTEINIUM diminutiveness
FLUORINE* neurofil
FRANCIUM microfauna
HELIUM* humlie
HYDROGEN greyhound
INDIUM cumidin, Numidia

IRIDIUM rhipidium
MERCURY conumerary
OXYGEN exogeny, xylogen
PLATINUM penultima
RHODIUM* humidor
RUBIDIUM Brundisium
SELENIUM* semilune, seminule
STRONTIUM uromantist
THALLIUM limphault
URANIUM lunarium

Exact transposals have been indicated with an asterisk. The words can be generally found in the unabridged Merriam-Webster dictionaries, with the exception of Brundisium and uromantist. I find the most esthetically-pleasant solution the one-letter transadditon of hydrogen, namely greyhound. It is hard to imagine any but the computer finding diminutiveness as a transaddition of Einsteinium!

Can any Word Ways reader write an article on the possibilities of reprogramming the Franklin to carry out logological investigations?

