

# Follow-up revised designs of the alchemical symbols block

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This is an addendum to [L2/23-069R3](#) *Revised designs of the alchemical symbols block*, based on feedback and further attestation over the last year. Specifically, I propose a reduction of the retort symbol to something closer to modern reproductions, restoring two regulus and realgar glyphs to something closer to their original (2009) Unicode designs, and changing the glyph for calx from an abbreviation – its original Unicode glyph was simply a capital Latin letter C – to its most common symbol.

## Changes in representative glyphs

| Character             | 2009 glyph | Revised glyph | Proposed glyph |
|-----------------------|------------|---------------|----------------|
| 1F730 <i>regulus</i>  |            |               |                |
| 1F73C <i>realgar</i>  |            |               |                |
| 1F74C <i>calx</i>     |            |               |                |
| 1F768 <i>crucible</i> |            |               |                |
| 1F76D <i>retort</i>   |            |               |                |

**Regulus.** The symbol for regulus has two basic forms, one resembling a flower, , and one resembling a crown, , which are encoded as U+1F730 ALCHEMICAL SYMBOL FOR REGULUS OF ANTIMONY and U+1F732 ALCHEMICAL SYMBOL FOR REGULUS, respectively. The glyph for U+1F730 is currently a compromise of the two, , but because the characters are disunified, the glyph should be more distinct. The initial Unicode glyph was better in this regard. Characters derived from these symbols, namely U+1F71F ALCHEMICAL SYMBOL FOR REGULUS OF IRON and U+1F735 ALCHEMICAL SYMBOL FOR REGULUS-4, could continue to use the compromise forms  and .

**Realgar.** The second symbol for realgar, U+1F73C ALCHEMICAL SYMBOL FOR REALGAR-2, could be restored to something closer to its more elegant original Unicode design, .

**Calx.** The original Unicode design for U+1F74C ALCHEMICAL SYMBOL FOR CALX was simply the Latin letter capital C. My initial change request was overly conservative, proposing only that it be made distinct from ASCII C by adding a cross, for a ligature . However, this is inconsistent with its derived symbol for quicklime. Quicklime has two common designs: an abbreviation CV for Latin *calx viva*, analogous to the abbreviation C for *calx*, and a symbol , which is based on the symbol  for *calx*. It was the symbol  that was chosen as the glyph for U+1F741 ALCHEMICAL SYMBOL FOR QUICK LIME. For consistency, the symbol for *calx* should be the glyph  that forms the basis of the  symbol for *calx viva*.

**Crucible.** Finally, it is perhaps advisable to redesign U+1F768 ALCHEMICAL SYMBOL FOR CRUCIBLE-4 from a crossed capital Latin letter T, essentially a duplicate of U+0166 LATIN CAPITAL LETTER T WITH STROKE, , to a more pictographic design , considering that this symbol is a conflation of a letter T with a pictographic crucifix .

**Retort.** The design of the retort, U+1F76D ALCHEMICAL SYMBOL FOR RETORT, could be further simplified to the more elegant modern form , following De Rosemont (1932) and the 2004 edition of Starkey.

# Chart

Redesigned glyphs are highlighted with a blue background.

|   | 1F700 | Alchemical symbols |      |      |      |      |      |      | 1F77F |
|---|-------|--------------------|------|------|------|------|------|------|-------|
|   | 1F70  | 1F71               | 1F72 | 1F73 | 1F74 | 1F75 | 1F76 | 1F77 |       |
| 0 |       |                    |      |      |      |      |      |      |       |
| 1 |       |                    |      |      |      |      |      |      |       |
| 2 |       |                    |      |      |      |      |      |      |       |
| 3 |       |                    |      |      |      |      |      |      |       |
| 4 |       |                    |      |      |      |      |      |      |       |
| 5 |       |                    |      |      |      |      |      |      |       |
| 6 |       |                    |      |      |      |      |      |      |       |
| 7 |       |                    |      |      |      |      |      |      |       |
| 8 |       |                    |      |      |      |      |      |      |       |
| 9 |       |                    |      |      |      |      |      |      |       |
| A |       |                    |      |      |      |      |      |      |       |
| B |       |                    |      |      |      |      |      |      |       |
| C |       |                    |      |      |      |      |      |      |       |
| D |       |                    |      |      |      |      |      |      |       |
| E |       |                    |      |      |      |      |      |      |       |
| F |       |                    |      |      |      |      |      |      |       |

## References

Andrew Bell (ca. 1800). Plate CXXXII of an unidentified publication. Available online at [wellcomecollection.org](http://wellcomecollection.org).

Encyclopédie: (1763) Plates for the 'chymie' entry of the *Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers*, volume 2b.

Nicaise le Febvre (1670) *A compleat body of chymistry*. London.

Isaac Newton, *Liber Mercuriolum Corporum*. Keynes ms 31, King's College Library, Cambridge University.

Louis Reutter de Rosemont (1932) *Histoire de la pharmacie a travers les ages*, vol II: 4 plates after p. 260 and 2 plates after p. 268.

George Starkey, William Newman & Lawrence Principe (2004) *Alchemical Laboratory Notebooks and Correspondence*. University of Chicago Press.

Jordan Stratford (2011) *A Dictionary of Western Alchemy*. Quest Books.

Basil Valentine (1671) *The last will and testament of Basil Valentine, monke of the Order of St. Bennet*. Edward Brewster, London.

## Figures

1F730 ☽ REGULUS (of antimony) and 1F732 ☽ REGULUS

These two characters, one based on a flower and one based on a crown, are graphic variants with the same reference.

The symbol ☽ seems to be used for regulus synonymously with ☽, but ☽ is distinct, representing specifically regulus martis, that is, regulus that has been produced with the use of iron. The two “wings” at the bottom of the cross represent iron, being taken ultimately from the arrow in the symbol for iron (♁), but probably through the intermediacy of John Dee’s *Monas hieroglyphica*. Dee’s monadic symbol has similar designs, and Dee states explicitly that these “wings” represent Aries, or iron. The final symbol, ☽, also used only once (RSMS 179, fol. 3v) appears to be only the lower half of ☽, and the context suggests that it too represents regulus, though this remains uncertain. The unique symbols at RSMS 179, fol. 3v, are un-

Figure 1. Starkey (2004: 338). U+1F730 ☽ REGULUS OF ANTIMONY and 1F735 ☽ REGULUS-4 appear to be synonyms meaning simply *regulus*. 1F734 ☽ REGULUS-3 is also discussed as being *regulus martis*. The flower allograph 1F730 ☽ should have rounded petals at top rather than the pointed tips found in the crown allograph 1F732 ☽ REGULUS.

## 1F74C $\omega$ CALX and $\Psi$ QUICKLIME (*calx viva*)

The original Unicode design was simply the Latin letter C. The symbol may have an additional element such as a cross. However, the more abstract symbol  $\omega$  may be placed first in symbol lists as the more common form.



Figure 2. Valentine. The *calx* symbol  $\omega$  and its derivative  $\Psi$  *calx viva* of which it forms the top element (red). At center of the first line is a C+ form, and at the right of the second line a CV form (blue).

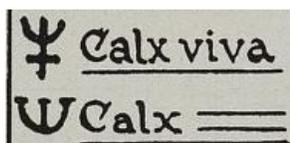


Figure 3. De Rosemont.  $\Psi$  quicklime (*calx viva*) and the proposed symbol  $\omega$  for *calx*.



Figure 4. Bell. The symbol  $\Psi$  and the abbreviation CV for Latin *calx viva*, parallel to  $\omega$  and C for *calx*.

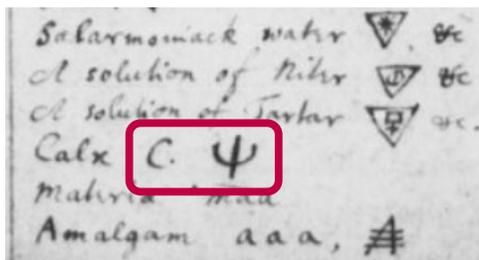


Figure 5. Newton. Table of symbols showing two variants of ‘calx’ in Newton’s manuscripts: a capital Latin letter ‘C’ and the requested form  $\omega$ .

## 1F768 † CRUCIBLE-4

This varies between a simple Latin T (an abbreviation of *tigillum*), a cross + (from the root *crux* in *crucibulum*), and a combined form †.

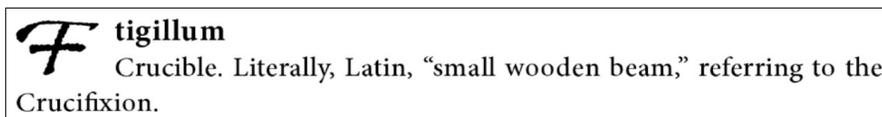


Figure 6. Stratford (2011: 83). The combined form.



Figure 7. Bell. The superscript *ble* shows that this symbol is simply + *crux*.

## 1F76D ∩ RETORT

As with the signs of the zodiac, a retort may be drawn in detail; the proposed form is at the abstract end of the range.

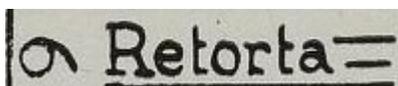


Figure 8. De Rosemont (1932).

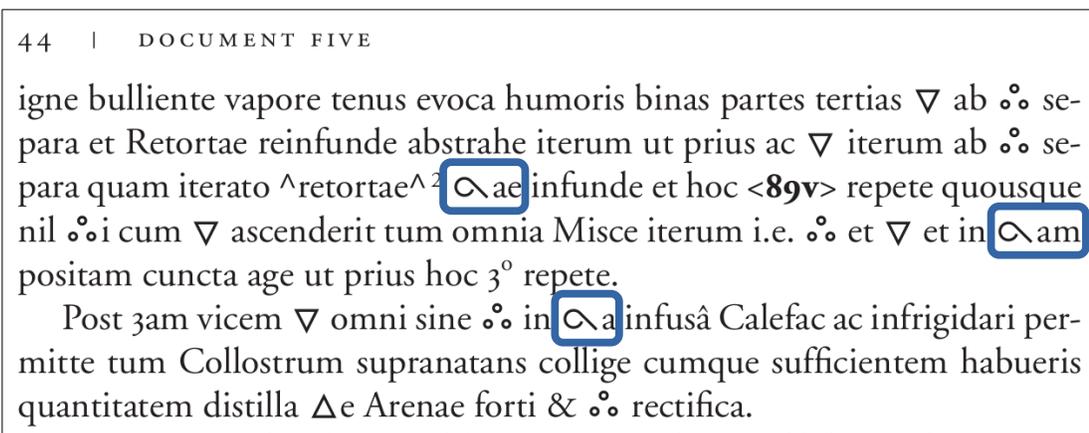


Figure 9. Starkey (2004: 44). The simple modern design of the glyph.