ANALYTICAL CHALLENGE

Solution to elemental pub quiz challenge

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The joint winners of the Elemental pub quiz challenge (published in volume 411 issue 25) [1] are: Anita Röthke and Mareike Renger, Physikalisch-Technische Bundesanstalt, Braunschweig, Germany.

The award entitles the winning group to select a Springer book of their choice up to a value of $\notin 100,-$.

Our Congratulations!

- 1. Which element is:
- a. New (neon, name etymology)
- b. Fake (technetium)
- c. Not alone (antimony)
- d. Heavy (barium)
- e. Unstable (astatine)
- f. Evil (cobalt)
- g. Strange (xenon)
- 2. Which element was:
 - a. Sweet (beryllium was previously known as glucinium)
 - b. An old man with scythe (lead, in alchemical allegories)
 - c. Brine, fleetingly (bromine, first named muride, also chlorine)
 - d. Purified by the grey wolf (gold, in alchemical allegories)
 - e. Discovered in the nose of the fairy hill (strontium, from village name)
 - f. One aluminium (gallium, Mendeleev's eka-aluminium)
 - g. Two manganese (rhenium, dvi-manganese)

3. Which:

a. Element relates to torment (tantalum)

This article is the solution to the Analytical Challenge to be found at https://doi.org/10.1007/s00216-019-02057-w

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- b. Element has its own sura (iron)
- c. Element lost a letter after World War II (protactinium, known as protoactinium before 1949, also lutetium or sulfur whose spelling changed)
- d. Goddess melts in hell (selenium, melts in liquid sulfur temperatures)
- e. Capital resists acids (hafnium, named after Copenhagen)
- f. Capital won over a constellation (lutetium, named after Paris, replaced cassiopeium, named after constellation)
- g. Daughter won over the United States of America (niobium, named after daughter of Tantalus, replaced columbium, named after the USA)

4. Figure out:

- a. 1 (iodine, 1 = I in Roman numerals)
- b. 5 (vanadium, 5 = V)
- c. 55 (livermorium)
- d. 100 (carbon)
- e. 400 (cadmium)
- f. 1100 (moscovium)
- g. 1500 (mendelevium)
- 5. *Rearrange:*
 - a. Iron fuel (fluorine, anagram)
 - b. Titanium crop (protactinium)
 - c. Red thorium fur (rutherfordium)
 - d. Go as erbium (seaborgium)
 - e. My sodium pear (praseodymium)
 - f. I am cerium (americium)
 - g. Francium oil (californium)

References

1. Meija J. Elemental pub quiz challenge. Anal Bioanal Chem. 2019;411:6531–2. https://doi.org/10.1007/s00216-019-02057-w.

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