

## X-ray fluorescence and digital imaging: inspiring students with chemistry and creative technology

The article went through 2 rounds of review and all 2 reviewers agreed in advance to publish their review reports disclosing all identities.

The authors agreed to disclose the reviewers' reports and their responses to the reviewers' comments.

**Disclaimer:** The peer review report content is the entire copy of the reviewers' and authors' comments. Typing and punctuation errors are not edited.

### ROUND 1

**Reviewer A:** Anonymous

**Recommendation:** Revisions Required

This is a nice paper describing educational use of X-ray fluorescence methods. Consistent with this, the work described here is relatively elementary. I think that this is a useful paper and should be published after the following inaccuracies have been attended to by the authors.

Page 9: Section 2.5 "Be detector" ought to be "Ge detector".

Page 16 (and vicinity): The X-ray fluorescence from thick, concentrated samples such as the coins studied will strongly attenuate the fluorescence signals. No mention is made of this. It will make a concentration calibration curve (page 17) less useful.

Page 16: Pair production / disintegration will not occur at the energies used for this study. This is implied in the next sentence, but it should be explicitly stated.

**Reviewer B:** Anonymous

**Recommendation:** Accept Submission

The paper presented is well written and suggests a different and interesting approach, associating a popular technology (smartphone) with laboratory instruments (XRF).

The article deserves to be published and for the final version I suggest to put the names of the analytical techniques, capitalizing the initial letters of each word.

Regarding the general structure of the paper, it will be important to resize the Conclusions, which are a bit long.

### ANSWERS TO ROUND 1

[Author's Files](#)

## ROUND 2

**Reviewer A:** Anonymous

**Recommendation:** Revisions Required

Reviewer X chose not to share his or her opinion, so only the final decision will be disclosed.

## ANSWERS TO ROUND 2

[Author's Files](#)

**ACCEPT SUBMISSION**

April. 01, 2025