

## Supplementary information

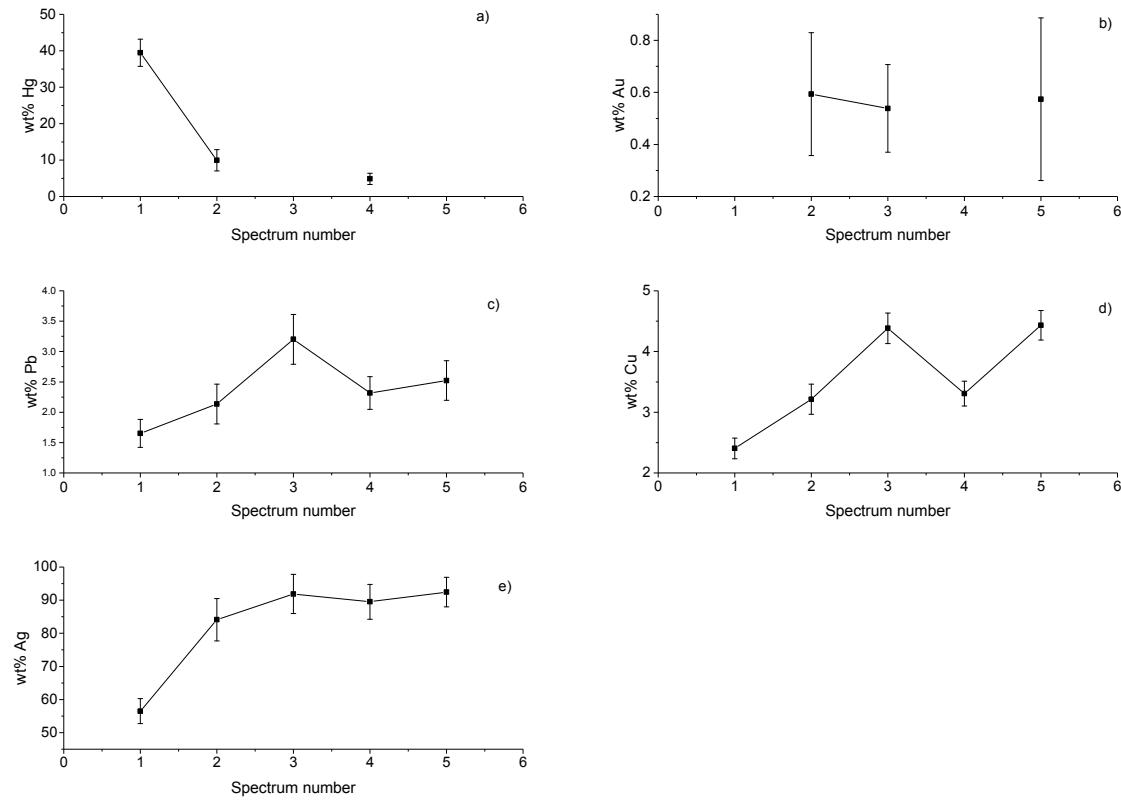


Figure S1: composition depth-profiles of Hg a), Au b), Pb c), Cu d), and Ag e) in spot B of the external surface of the Sasanian coin. Si was absent, and Ca was present only in the first spectrum ( $\text{wt\%} = 1.1 \pm 0.1 \times 10^{-3} \%$ ).

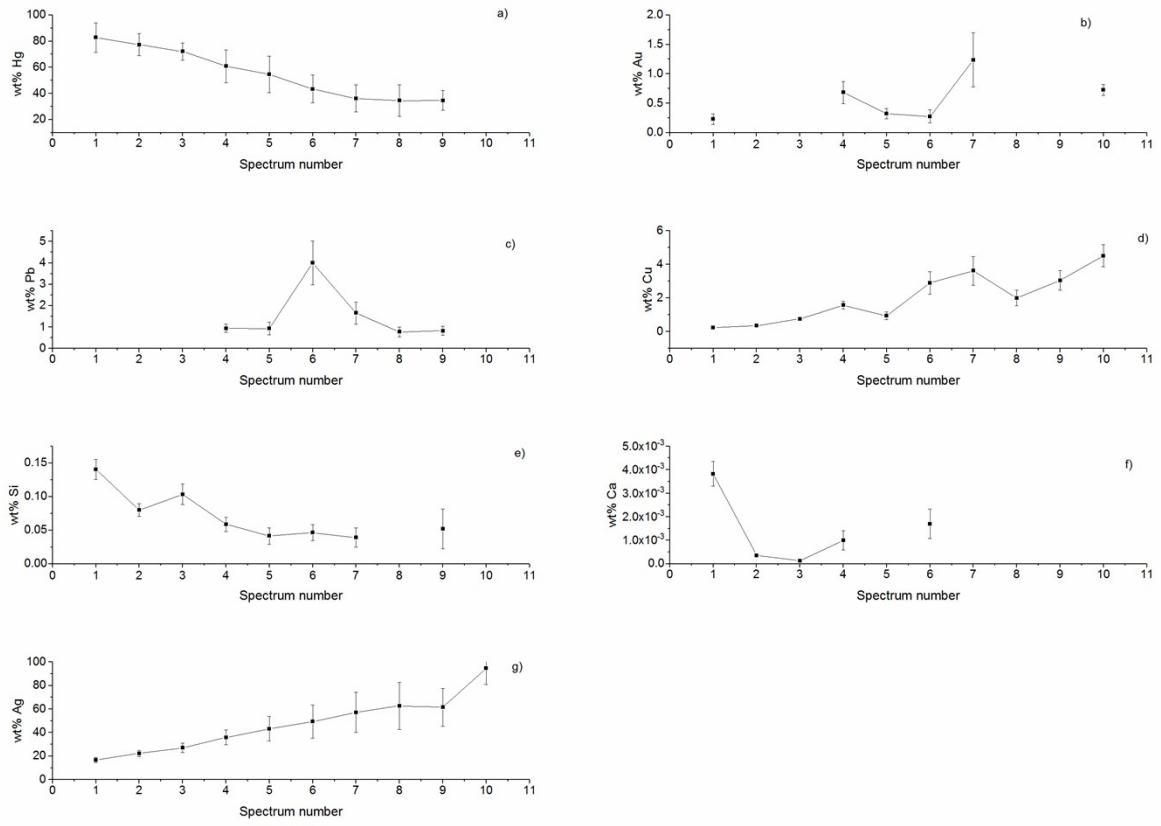


Figure S2: composition depth-profiles of Hg a), Au b), Pb c), Cu d), Si e), Ca f), and Ag g) in spot C of the external surface of the Sasanian coin.

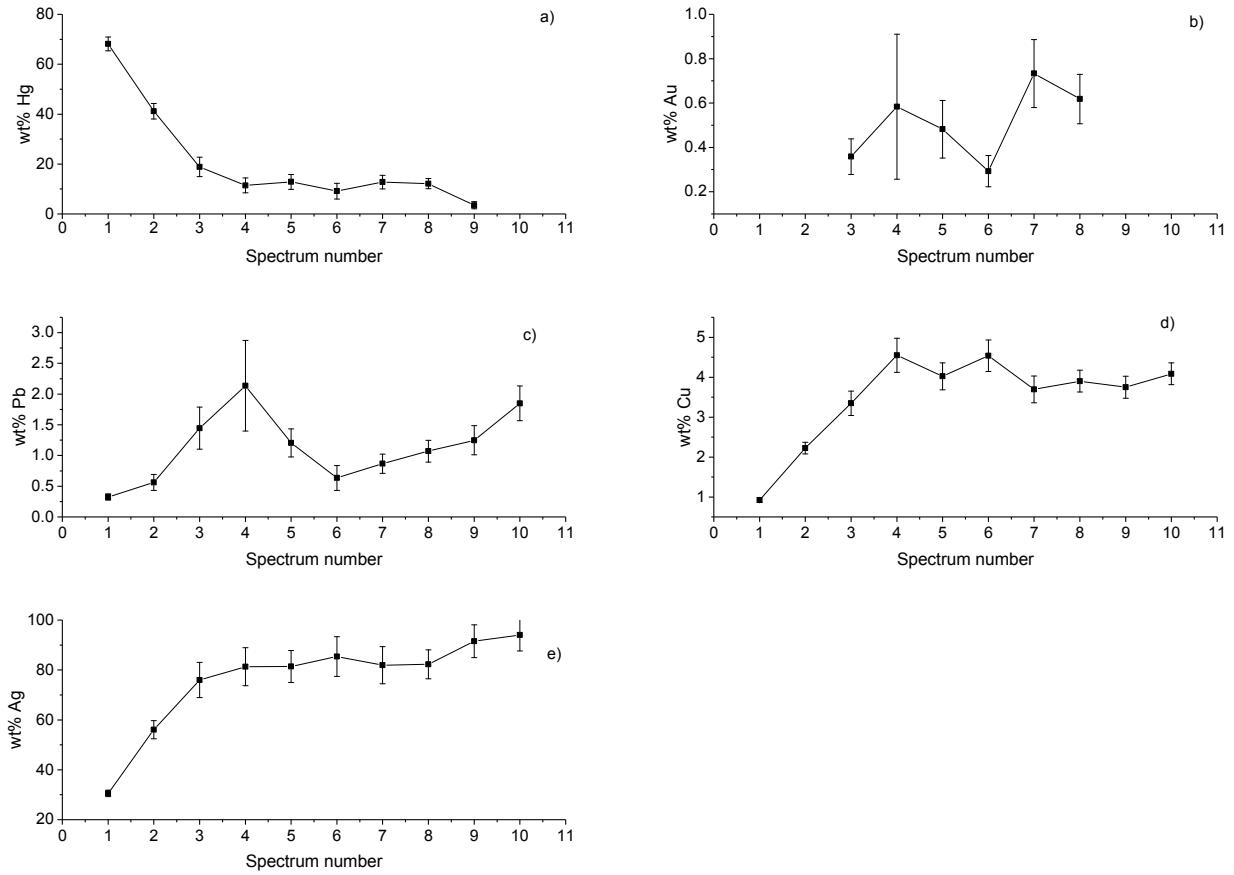


Figure S3: composition depth-profiles of Hg a), Au b), Pb c), Cu d), and Ag e) in spot D of the external surface of the Sasanian coin. Si and Ca were present only in the first spectrum, with the following wt%: Si  $0.034 \pm 0.003\%$ ; Ca  $(2.8 \pm 0.2) \times 10^{-4}\%$ .

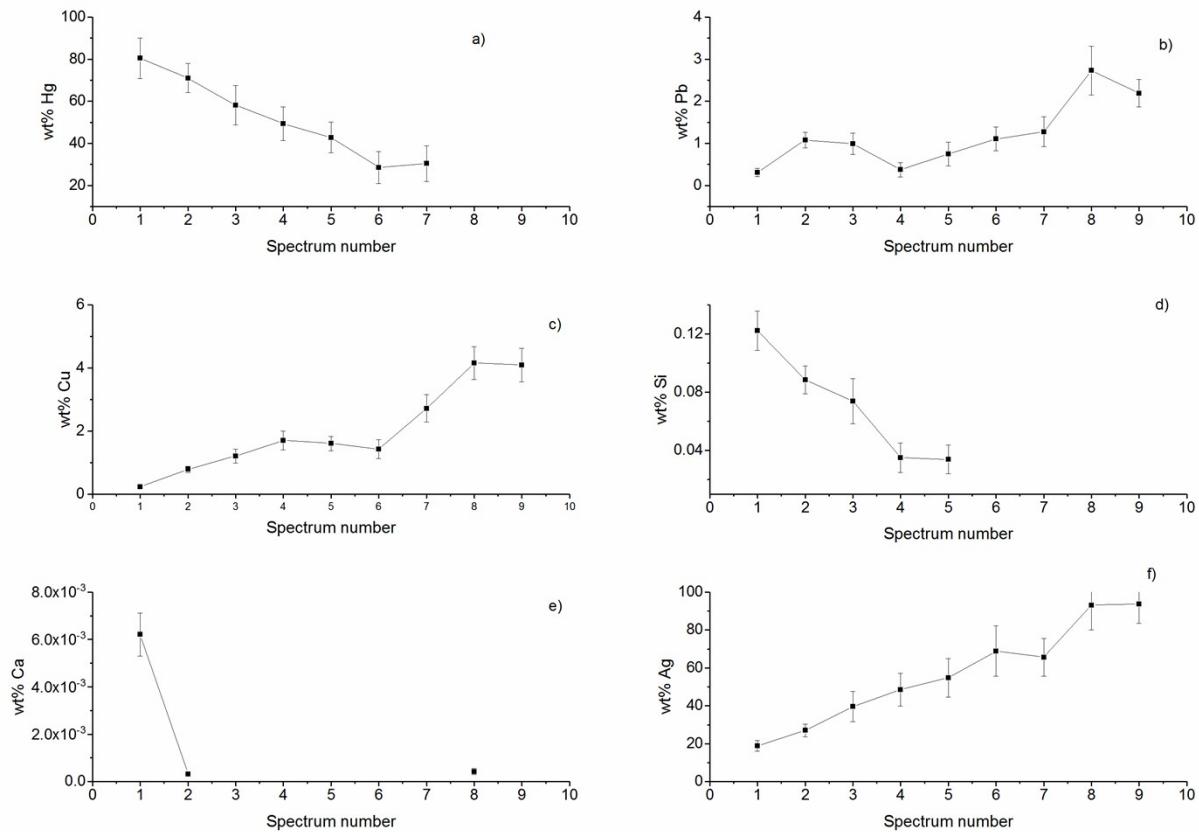


Figure S4: composition depth-profiles of Hg a), Pb b), Cu c), Si d), Ca e), and Ag f) in spot E of the external surface of the Sasanian coin. Au was absent.

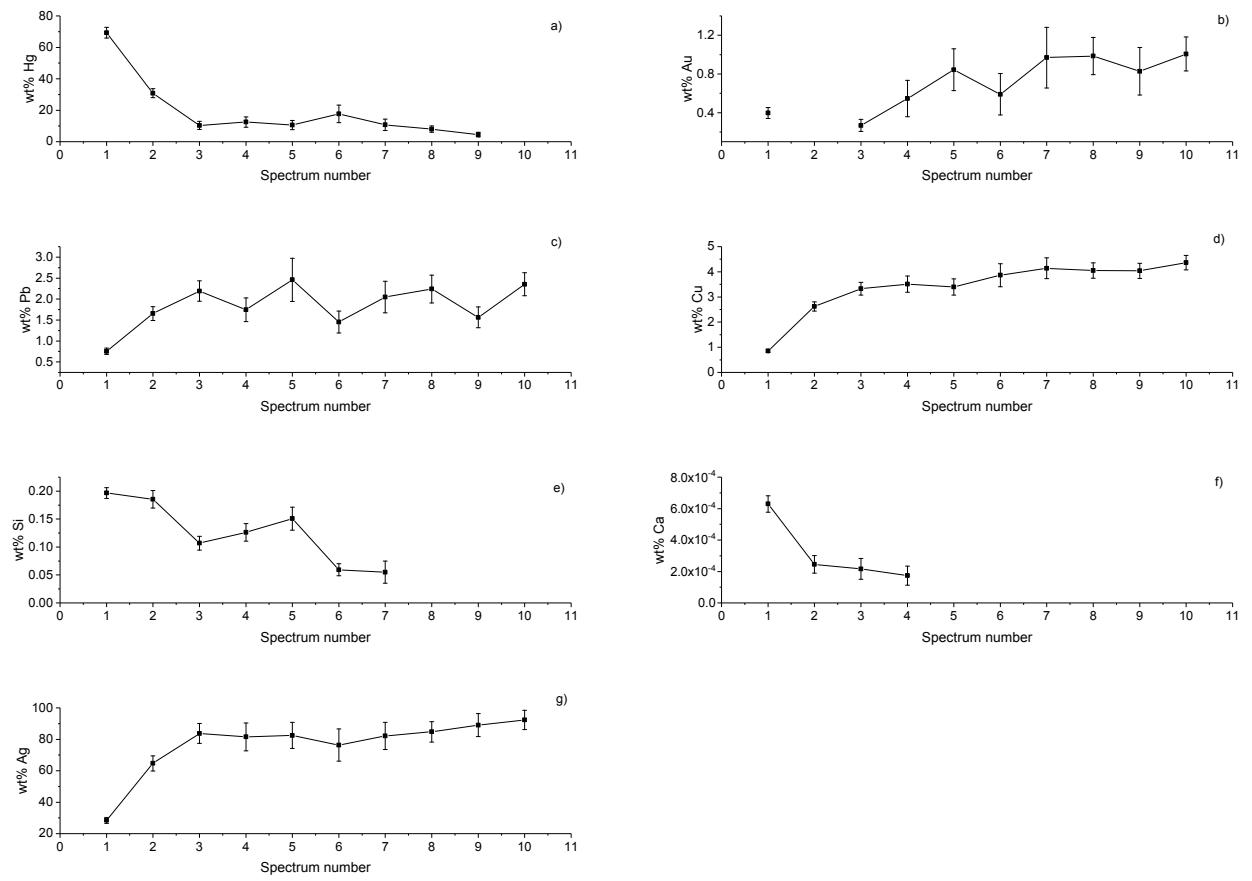


Figure S5: composition depth-profiles of Hg a), Au b), Pb c), Cu d), Si e), Ca f), and Ag g) in spot F of the external surface of the Sasanian coin.