

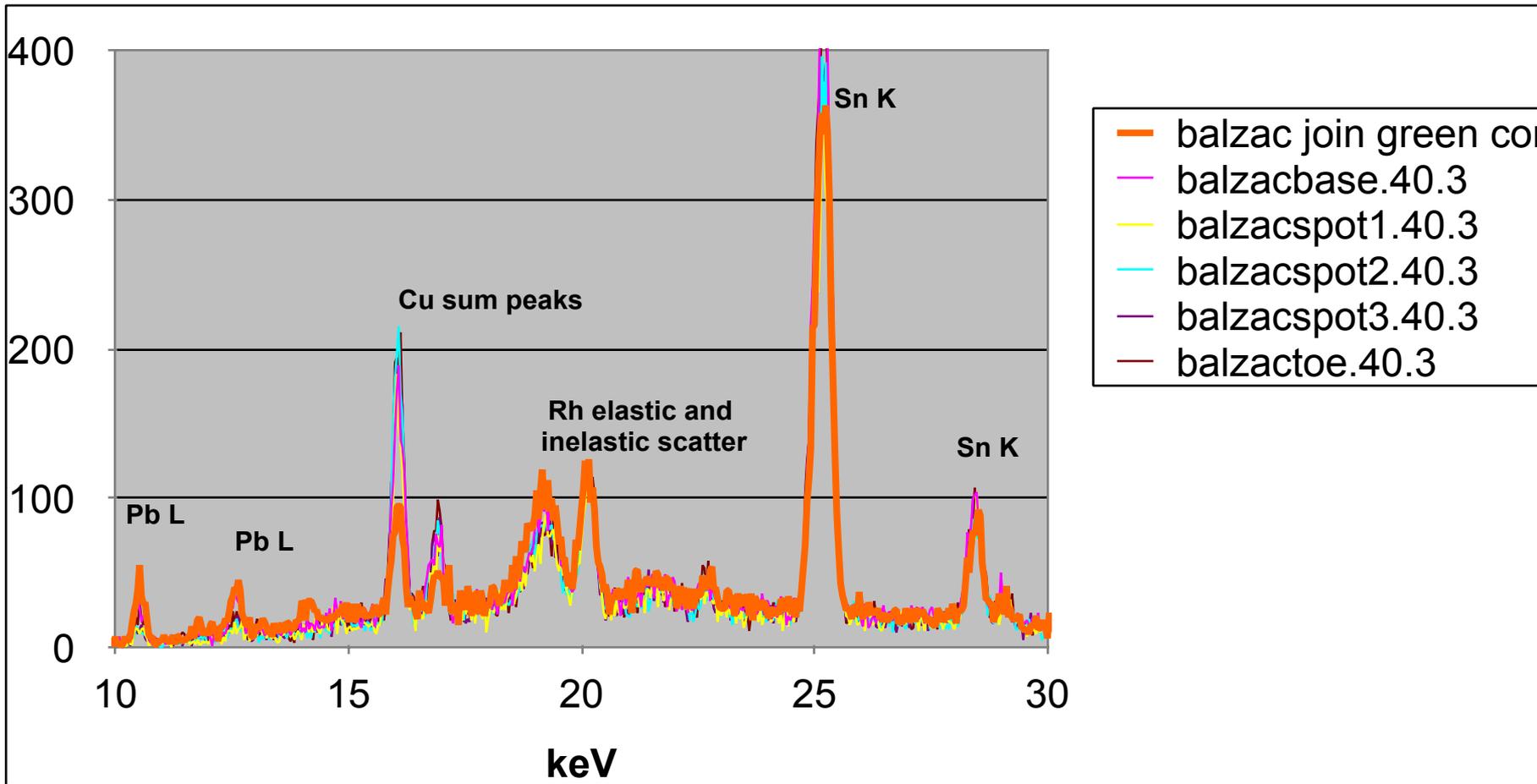
# Balzac



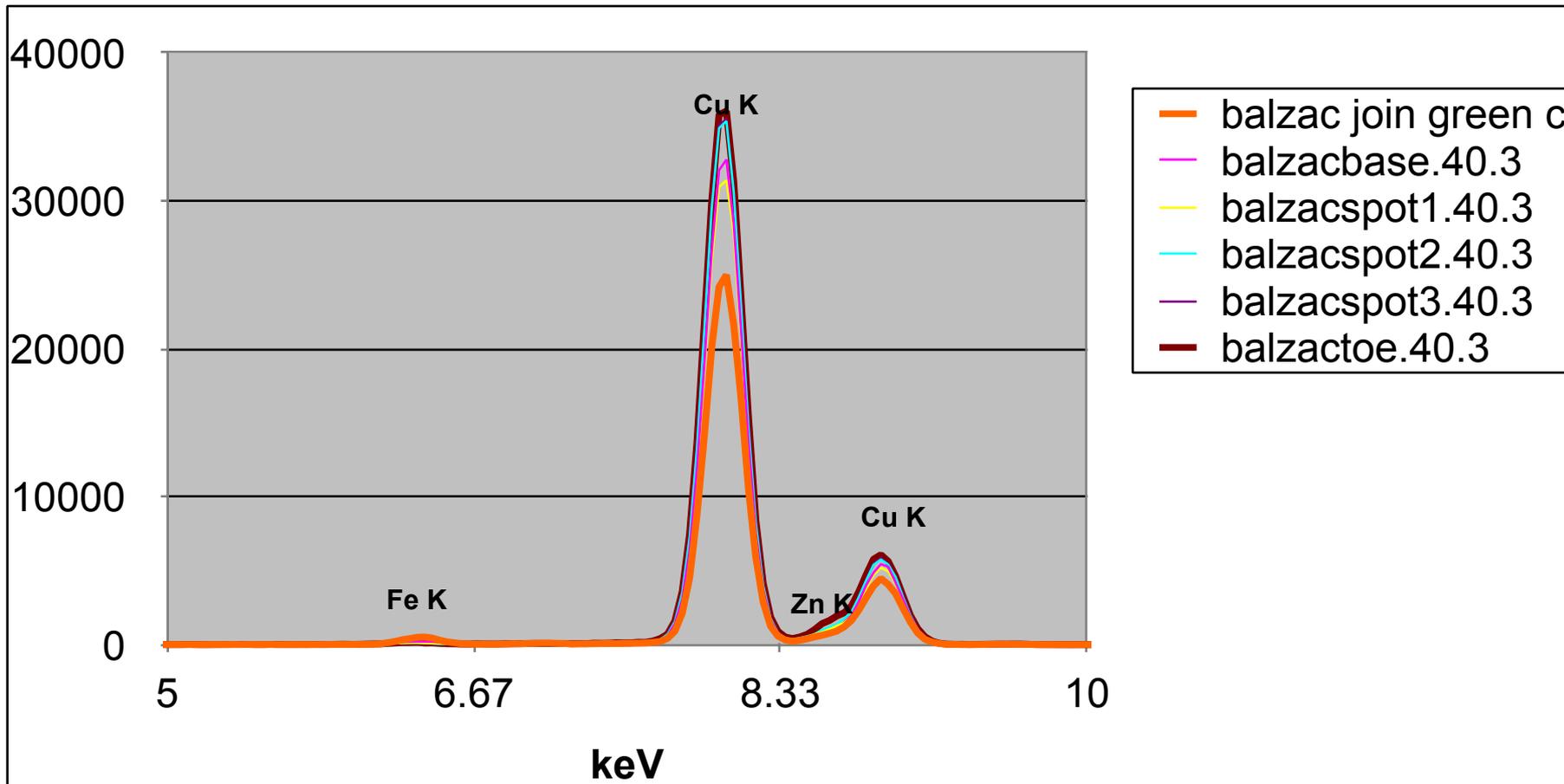
***Bronze corrosion and patina analysis***

The following slides are produced utilizing excel over lays of spectra taken on the Balzac sculpture in June before the statue was re patinated.

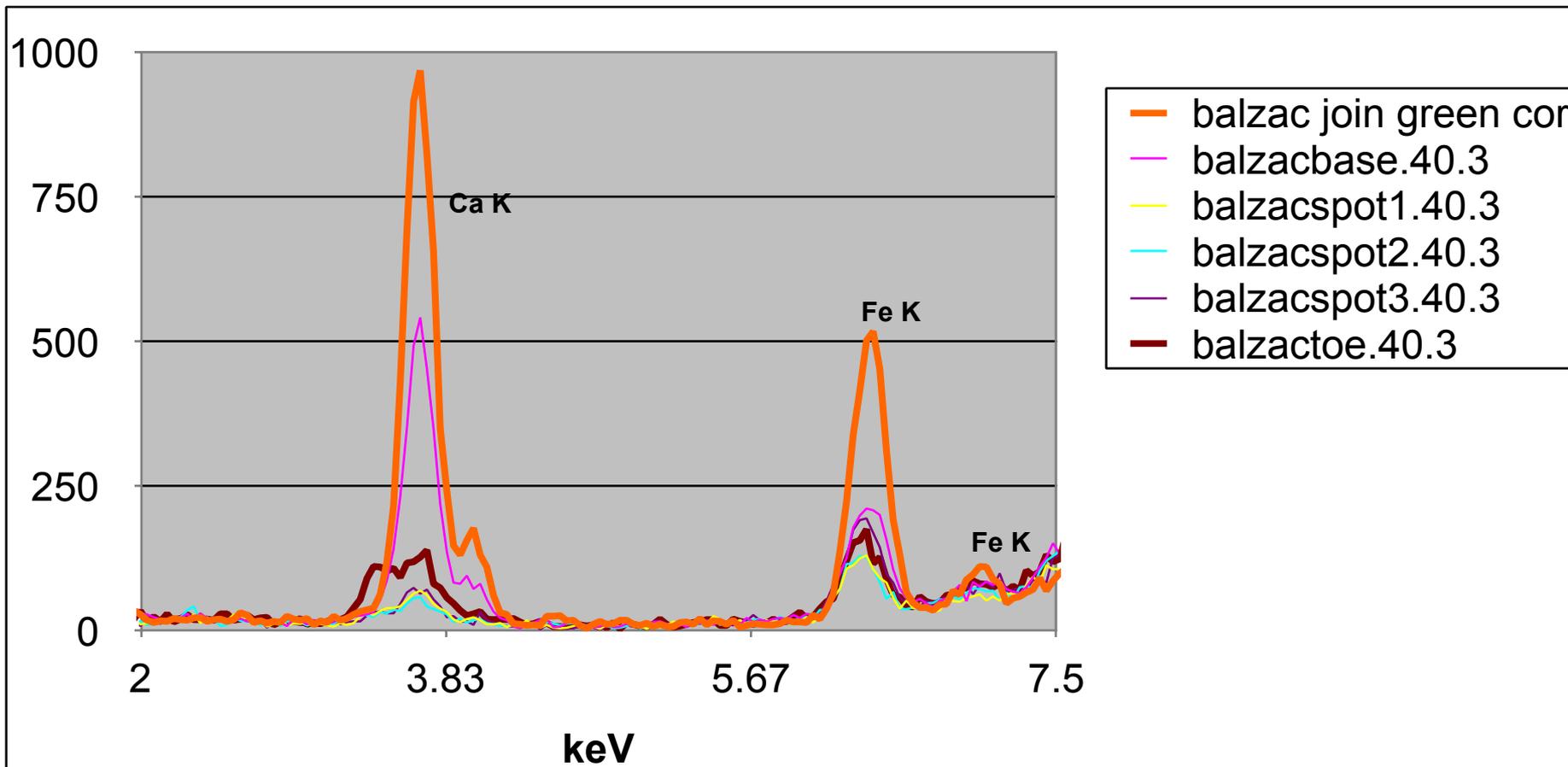
- 2 sets of data were taken with a 0.001” Cu filter in the Bruker handheld xrf instrument.
  - One at 40kV and 3 micro amps (the first 3 slides below).
  - The other set was taken at 15 kV and 15 micro amps (the last 2 slides below)



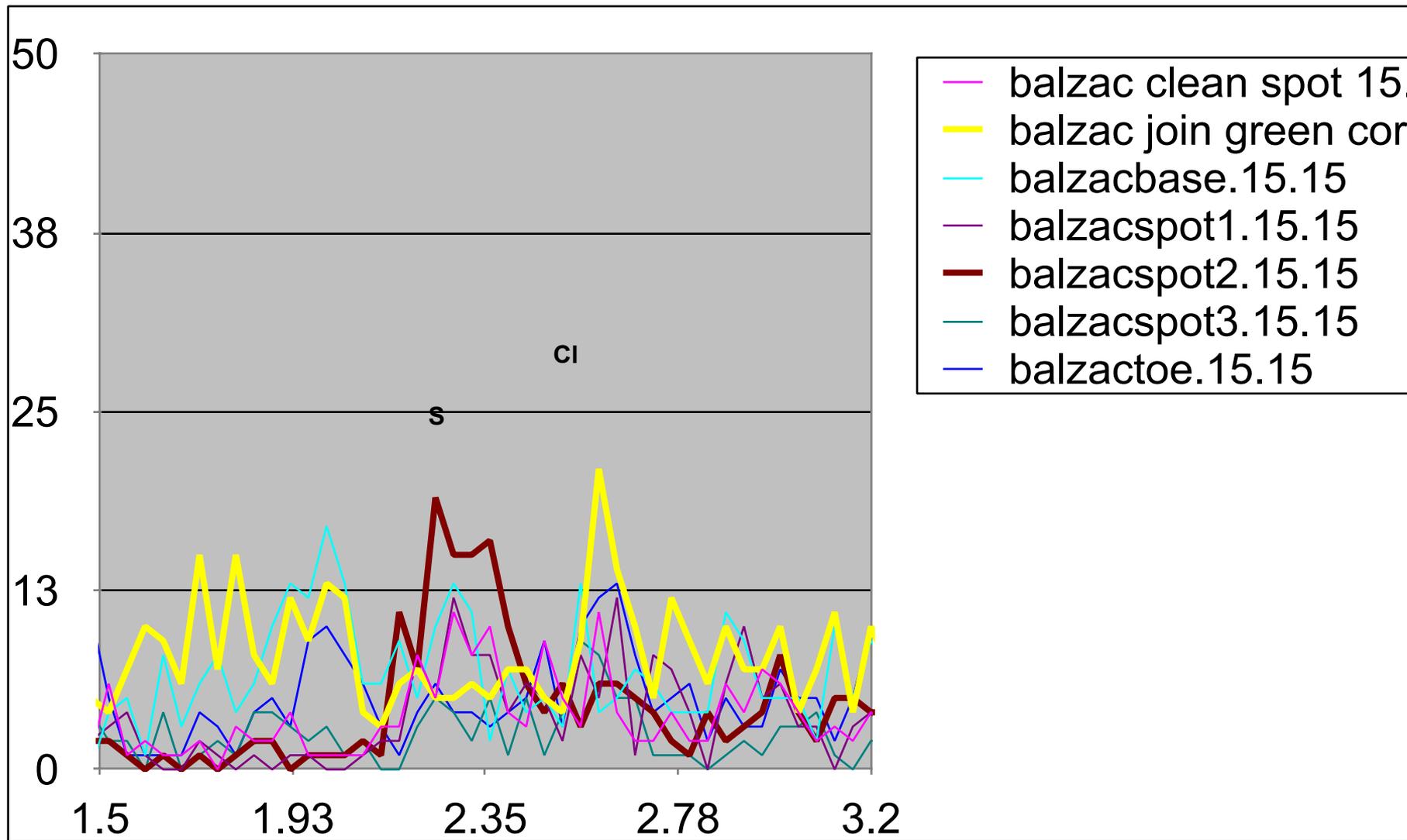
The Cu alloy contains a small amount Zn, Sn and a trace of Pb. See next slide for Cu and Zn



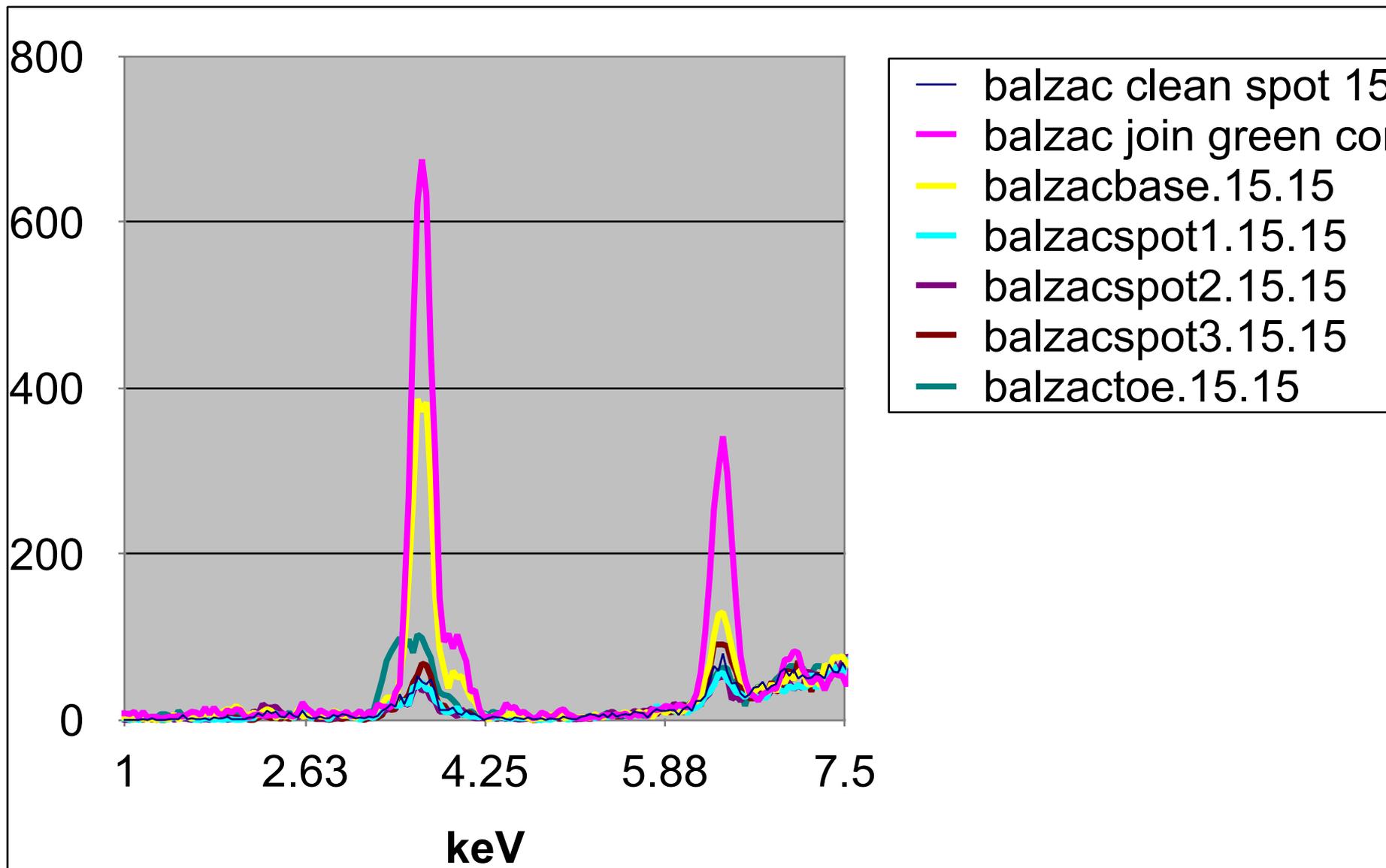
The Cu from the bulk alloy is attenuated depending on the thickness of the corrosion. Based on this the corrosion is thickest in the joint.



The join contained Fe and Ca build up,. Likely the product of water from sprinklers drying over the years.



There is a trace of Cl in the joint and a trace of S in spot 2.



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