

Gemmological study of a reliquary cross from the Liège Cathedral, Belgium



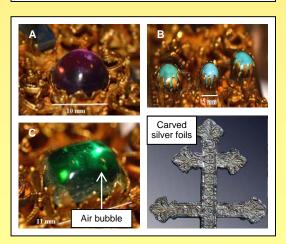
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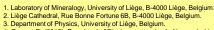
Introduction

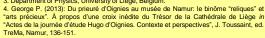
- · The cross was discovered in 1914, in a safe from the Liège Cathedral.
- · Double-arm cross with a wooden structure, covered by gold-coated copper on the front, and by carved silver foils on the back.
- · Cross also covered by filigrees, gems, pearls and glasswares.
- · Relics is constituted by fragments of the Holly Cross.

Reliquary cross 33.5 cm Amethyst (A) Turquoise (B) Garnet

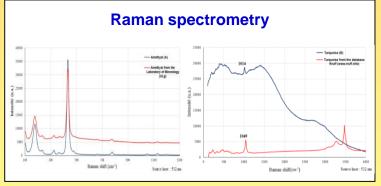
Glassware







XRF analyses **Turquoise** Leaded glassware Garnet Pearl



Conclusions

- A detailed stylistic investigation by George (2013)⁴ showed that the cross was realized in the early XIIIth century when Liège was a diocese of the German empire.
- After Raman spectrometry and X-ray fluorescence spectrometry (XRF) analyses, the results confirm the identification of six tiny pearls, six amethysts, twenty five turquoises and two garnets.
- Twelve glasswares were also identified with a green or blue color.
- The small red cross, located at the center, is constituted by a nice doublet with red glassware covered by quartz.
- · The filigrees contain Cu and Au, thus confirming that they are constituted by gold-coated copper.