38 Captions

Argyropoulos

Fig. 38.1. Tinned copper-alloy frying pan from a Byzantine shipwreck in Rhodes, Greece, manufactured by hammering technique. Athens, Ephorate of Underwater Antiquities, object ID 651/10.11.2013. Photo: Susana Mavroforaki; courtesy G. Koutsouflakis, Ephorate of Underwater Antiquities

Fig. 38.2. A cross-section of the frying pan in fig. 38.1 viewed under a stereomicroscope at x10 magnification. Photo: Susana Mavroforaki, Dept. of Conservation of Antiquities and Works of Art, TEI Athens

Fig. 38.3. Microscopic image of the cross-section of frying pan in fig. 38.1 at x20 magnification. Photo: Susana Mavroforaki, Dept. of Conservation of Antiquities and Works of Art, TEI Athens

Fig. 38.4. SEM image of black surface of the frying pan where small round globules indicate the possibility of intermetallic compound η-Cu6Sn5 with around 57 wt.% Sn concentration analyzed by SEM-EDAX. Image: Susana Mavroforaki, Dept. of Conservation of Antiquities and Works of Art, TEI Athens

Fig. 38.5. Local electrolysis of the frying pan. Image: © TEI Athens

Fig. 38.6. Plot of the total amount of chlorides versus duration of treatment for the handle of the frying pan undergoing local electrolysis. Image: © TEI Athens

Fig. 38.7. Plot of the total amount of chlorides versus duration of treatment for the base of the frying pan undergoing local electrolysis. Image: © TEI Athens

Fig. 38.8. The frying pan (a) before and (b) after treatment with local electrolysis and the corrosion inhibitor L-cysteine. Photo: Susana Mavroforaki; courtesy G. Koutsouflakis, Ephorate of Underwater Antiquities