

## Climate change of pollution and its destructive effect on mechanical, physical and tonal qualities of historical albumin photographs prints

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### Abstract:

This paper presents a study of the result of changing the mechanical and physical properties of Black and White Silver Albumin Photographs Prints due to exposure to air pollution gases. The test material used is black-and-white silver albumin photographic paper. Different properties and characteristics of the prints have then been measured and compared before and after the exposing. Mechanical and physical performance was also investigated. Tensile strength, elongation percentage, and resistance breakout force and tear have been determined. Identify of Change in color characteristics by using Colorimeter. Identify change in functional groups by using FT-IR ATR. Learn about the change in surface morphology and chemical composition of components by using SEM-ADX. The obtained results indicate a certain change in the mechanical ,physical properties of the supporting paper, which may probably increase with time. As a result of slightly influences on Albumin structure units were observed when N<sub>2</sub> gas and CS<sub>2</sub> gas were applied. Both gases surprisingly decreased the aging processes through decreasing CO<sub>2</sub> release from Albumin structural unit.

### Biography:

Rasha Shaheen is a Senior Photograph Conservator at the Egyptian Museum. She is responsible for conserving Archives in Cairo's Museums. She finished a Master's degree in Conservation of heritage paper and photographs from Catania University in Italy. Nowadays, She enrolled in Ph.D. at Fayoum University in using Nano Silver to treat with Black and White Gelatin Silver prints. She published many manuscripts in conservation and preservation in different materials (Photograph Prints, Textile, Moulds, Metals), but She is interested in conserving Archives (including paper, photographs, maps). She conserved many albums back to the 1800s, and 1900s ), like an album back to Khedive Ismail Pasha, an Album back to the opening ceremony of the Coptic Museum, an album of Anwar Al-Sadat President of Egypt back to the 1950s. She participated in many conferences, symposiums, and meetings interested in conserving paper and photographs. She has many grants to enhance my study and career. I'm a member of AIC, IIC, and ICOM.

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