
effect of chemical erasure on aged inks written on some paper documents

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this work different variety of written papers were used namely, Japanese writing paper, Brazilian writing paper, yellow writing paper and ruled writing paper which marked with three types of inks namely, iron blue aqueous ink (vispen), blue ball point ink (Reynolds), blue ballpoint ink (Bic). Two types of chemical erasures were chosen, acidic solution of sodium hypochlorite prepared from commercial Clorox solution with oxalic acid till pH 5. The second erasure is benzyl alcohol followed by wiping with ethyl alcohol. The accelerated aging was used by subjected the samples of inks marked on different types of papers at 100°C for different time periods from 100 to 400 minutes. The first part of this work was used to study the relative aging of inks using single-solvent extraction technique. The extraction method of Cantu and Prough was applied for measuring the relative age of ink. The change of absorbance of dye of ink in the solvent was measured by spectrophotometer in visible region at 550 nm. The single aging curves of each type of ink placed on different papers, or different formula of inks placed on the same type of paper was determined during a period of accelerating aging from 100-400 minutes at 100°C. It was found that the stability of the inks to going on the papers, is affected by the type of paper used