at energy of 3.312 keV. It is clearly observed that C increased from 58.83 % to 75.23 %. This is due to the migration from the ester into the paper on the other hand oxygen reduced from 41.17 % to 21.69 % because the oxygen from the paper reacted with oil in an oxidation and release CO gas as confirmed by DGA (dissolved gas analysis). Similar behavior was observed for aging at 150^{o}C. C element composition increased to 78.19 % of C at energy of 0.277 keV , while O element reduced to 19.98 % observed at energy of 0.525 keV and K with mass remain low at percentage of 1.83 % observed at energy of 3.312 keV. Thermal ageing of Kraft paper in ester oils yield mainly CO gas and this gas represents the decomposition of cellulose into the ester sample.

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