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(54) **Title:** AUTHENTICATION OF SECURITY DOCUMENTS AND MOBILE DEVICE TO CARRY OUT THE AUTHENTICATION

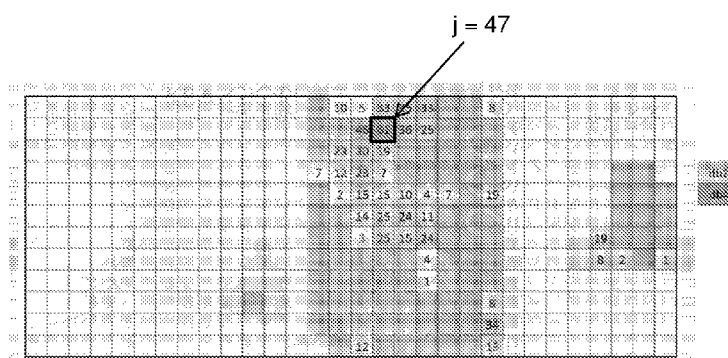


Fig. 7(c)

(57) **Abstract:** A method of authenticating security documents and a mobile device, especially a smartphone, programmed to carry out the method, based on an analysis of features which are produced by intaglio printing, which analysis involves a decomposition of sample images of a candidate document to be authenticated based on Wavelets, each sample image being digitally processed by performing a Wavelet transform of the sample image in order to derive a set of classification features. The method is based on an adaptive approach, which includes the following steps : - prior to carrying out the Wavelet transform, defining a categorization map containing local information about different intaglio line structures that are found on the security documents; - carrying out a Wavelet selection amongst a pool of Wavelet types based on the categorization map; and - performing the Wavelet transform of the sample image on the basis of the selected Wavelet.