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(71) Applicant: **SICPA HOLDING SA** [CH/CH]; Avenue de
Florissant 41, 1008 Prilly (CH).

(72) Inventors: **MOLINA, Aldric**; 6401 Santa Monica Ave
NE, apt 2118, Albuquerque, New Mexico 87109 (US).

BREWSTER, James; 10531 City Lights Dr NE, Albu-
querque, New Mexico 87111 (US).

(74) Agent: **GATESIP**; Siedlungsstr. 4a, 85253 Erdweg (DE).

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(54) Title: METHOD AND SYSTEM FOR DETECTING AND AUTHENTICATING A TAGGANT IN A MARKING VIA SUR-
FACE-ENHANCED RAMAN SPECTROSCOPY

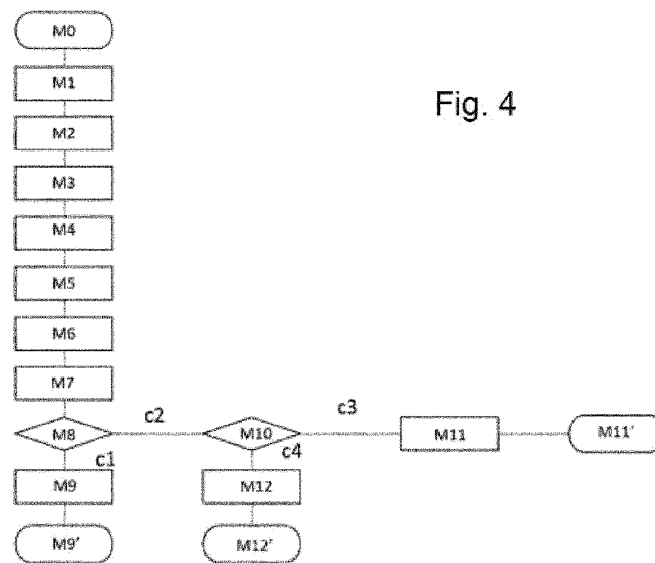


Fig. 4

(57) Abstract: The invention relates to a method, and a corresponding system, capable to check whether genuine SERS or SERRS taggants having a unique characteristic surface enhancement scattering feature are present or not on a machine-readable marking applied on a value document by using a Raman spectrometer adapted to perform a Raman Spectroscopy analysis of the marking. The method according to the invention allows a reliable and fast detection of a presence of the SERS/SERRS taggants, and is particularly suitable for checking authenticity of value documents, e.g. such as banknotes, moving with respect to the Raman spectrometer with a given speed, and possibly with a high speed, or briefly exposed to the Raman spectrometer.

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