



(51) International Patent Classification:

G06K 7/10 (2006.01) *G06K 19/14* (2006.01)
G06K 7/14 (2006.01)

(21) International Application Number:

PCT/IB2014/063209

(22) International Filing Date:

18 July 2014 (18.07.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PCT/IB2013/001629 19 July 2013 (19.07.2013)

IB

(71) Applicant: NISS GROUP SA [CH/CH]; Route de Saint-Cergue 297, CH-1260 Nyon (CH).

(72) Inventors: **PACHE, Christophe**; Ch. de Fontenay 3, CH-1007 Lausanne (CH). **LIU, Hua**; 16 Lesley Road, Carlingford, New South Wales NSW 2118 (AU). **MCGREGOR, Tom**; 4 Glenayr Avenue, West Ryde, New South Wales NSW 2114 (AU). **GANJEKAR, Sayee**; 27 Sirius Street, Dundas Valley, New South Wales NSW 2117 (AU).

(74) Agent: REUTELER & CIE SA; Chemin de la Vuarpillière 29, CH-1260 Nyon (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR IDENTIFYING AND AUTHENTICATING A TAG

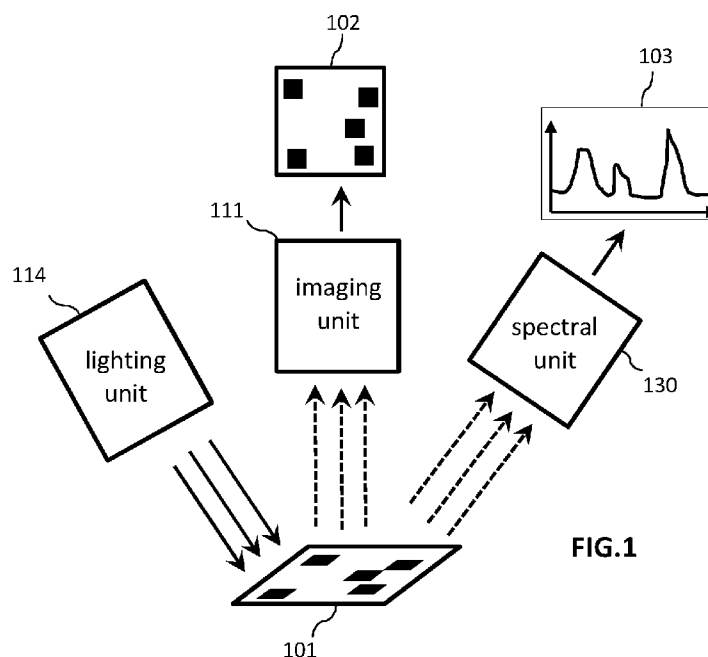


FIG.1

(57) Abstract: The invention relates to a system (100) and method for identifying and authenticating a tag defined by at least a spatial pattern and the spectral signature of luminescent particles. The system comprises a reading module (110), a processing module (120) and a database (130) containing the stored tag identities. The spatial pattern and spectral signature are acquired by an imaging unit (111) and a spectral unit (112) respectively in a sequential manner, the acquisition being synchronized with different excitation light pulses. The validation of the tag comprises the use of background and signal acquired by both the imaging unit (111) and the spectral unit (112).



— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*