

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
20 October 2022 (20.10.2022)



(10) International Publication Number
WO 2022/220702 A3

(51) International Patent Classification:

A01N 59/00 (2006.01) *B01J 23/72* (2006.01)
B01J 21/06 (2006.01) *B01J 35/00* (2006.01)
B01J 23/02 (2006.01) *B01J 35/02* (2006.01)
B01J 23/48 (2006.01)

(21) International Application Number:

PCT/RO2022/050005

(22) International Filing Date:

13 April 2022 (13.04.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

a 2021 00176 15 April 2021 (15.04.2021) RO

(72) Inventor; and

(71) Applicant: **BUCURESTEANU, Razvan-Catalin**
[RO/RO]; Str. Pestera Scarisoara nr.1A, Bl.701A, Sc.A,
ap.26, 062071 Bucharest (RO).

(74) Agent: **FIERASCU, Cosmina**; ROMINVENT S.A., 35 Er-
mil Pangratti Street, Sector 1, 011882 Bucharest (RO).

(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, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JM, JO, JP, KE, KG, KH,
KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, 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, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM,
ZW.

(54) Title: INORGANIC PIGMENT WITH THE FUNCTION OF LIGHT ACTIVATED CATALYST

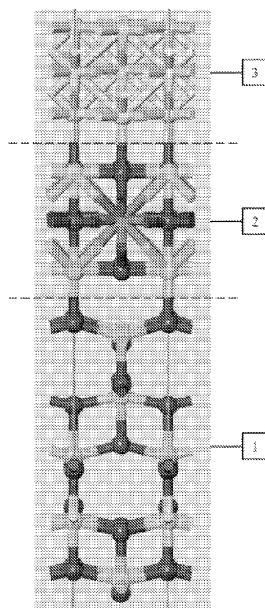


Figure 1

(57) Abstract: The present invention relates to an inorganic pigment with the function of a catalyst that can be activated by light from the entire visible spectrum but also in the absence of light, to a process for obtaining it, to various formulations containing this inorganic pigment and its use. The present invention also provides a method of destroying pathogens represented by irradiating with electromagnetic radiation from the entire visible spectrum (400nm-700nm) the surfaces on which they have been applied - formulations containing the inorganic pigment. Additionally, the invention provides the use of the pigment disclosed herein for its catalytic, bactericidal, virucidal and de-pollution activity in the absence of light.

[Continued on next page]

WO 2022/220702 A3

(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, ST, 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:

— *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))*
— *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*

(88) Date of publication of the international search report:

15 December 2022 (15.12.2022)