

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
10 July 2025 (10.07.2025)



(10) International Publication Number
WO 2025/146449 A1

(51) International Patent Classification:

G16B 5/30 (2019.01) G16B 50/00 (2019.01)
C12M 1/36 (2006.01)

(21) International Application Number:

PCT/EP2025/050031

(22) International Filing Date:

02 January 2025 (02.01.2025)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

24305002.8 02 January 2024 (02.01.2024) EP

(71) Applicant: **MERCK PATENT GMBH** [DE/DE]; Frank-
furter Strasse 250, 64293 Darmstadt (DE).

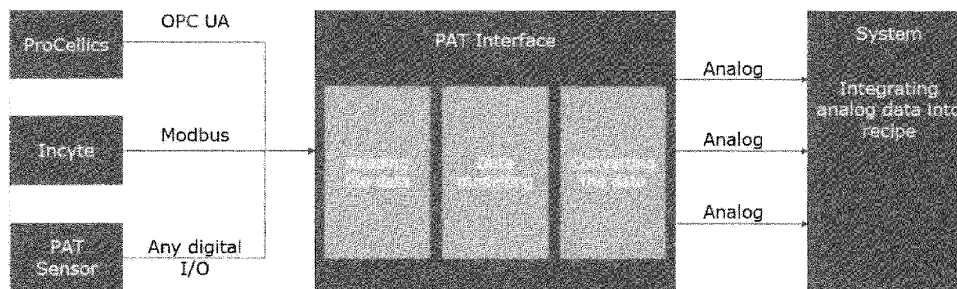
(72) Inventors: **JOURDAINNE, Laurent**; c/o Millipore
S.A.S., 39, Route Industrielle de la Hardt, 67120
MOLSHEIM (FR). **SCHINI, Adèle**; c/o Millipore S.A.S.,
39, Route Industrielle de la Hardt, 67120 MOLSHEIM

(FR). **AUTIER, Guillaume**; c/o Millipore S.A.S., 39,
Route Industrielle de la Hardt, 67120 MOLSHEIM (FR).
GUEDON, Emmanuel; c/o Centre national de la recherche
scientifique (CNRS), 3, RUE MICHEL ANGE, 75016
PARIS (FR). **EBEL, Bruno**; c/o Université de Lorraine, 34
cours Léopold, BP 25233, 54052 Nancy (FR).

(74) Agent: **MERCK PATENT ASSOCIATION**; c/o Merck
Patent GmbH, 64271 Darmstadt (DE).

(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, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, 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,

(54) Title: PAT INTERFACE



Layers connected through the PAT Interface.

Figure 2

(57) Abstract: An Interface System and a method for connecting hardware based data sources with a System for producing biochemical compounds comprising the following components: • An User Interface to configure the Interface System; • An Input Interface for receiving data from the hardware based data sources including at least one standard hardware connector; • At least one software based model configured to process the received data from the hardware based data sources to calculate biochemical process parameters for the system; • An Output Interface to provide the processed digital data provided by the at least one software based model to the System for producing biochemical compounds, including at least one standard hardware connector; and • At least one computer to host the User Interface, the model and control the input and output interfaces.

[Continued on next page]

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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).

Published:

- with international search report (Art. 21(3))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE