Eugen Gheorghiu
Lista de brevete și publicații

Brevete (US & EU):

1. US Patent 11,680,939/2023, Systems and methods for detecting bioactive compounds using sensors with pre-stimulated cells, Autori: M. Gheorghiu, E. Gheorghiu
2. US Patent 11,733,323/2023, Systems and Methods for measuring cellular response to target analytes by controlled application of an oscillating stimulus, Autori: E. Gheorghiu, M. S. David, M. Gheorghiu
3. European Patent: EP2710359/2020, Systems and Methods for Detection and Quantitation of Analytes Using Periodic Actuation, Autori: E. Gheorghiu, M.S. David, C. Polonschii, D. Bratu
4. U.S. Patent 9,315,855/2016: Systems and Methods for Detection and Quantitation of Analytes Using an Oscillating Stimulus, Autori: E. Gheorghiu, M. S. David, C. Polonschii, D. Bratu

Brevete (Ro)

[1] Brevet Ro 133203/30.05.2025 - "Metodă de determinare cu precizie a amplitudinii unui semnal format din pulsuri repetitive dreptunghiulare și a decalajelor temporale ale unui semnal format din pulsuri repetitive distorsionate, față de pulsuri de referință", Autori: Gheorghiu E., David S, Gheorghiu M., Bratu D.

[2] Brevet Ro133858/28.03.2025 - Metoda si Dispozitiv de măsurare cu precizie a variaţiei periodice a impedanţei electrice a unei probe", E. Gheorghiu, R. Dabu, D. Ursu, M. Gheorghiu, M. S. David, C. Polonschii, D. Bratu

[3] Brevet Ro 132361/28.02.2023 - "Metodă si dispozitiv de iluminare și recepție pentru aplicații de microscopie care utilizează reflexia totală internă", Autori: E. Gheorghiu, R. Dabu, D. Ursu, M. Gheorghiu, M. S. David, C. Polonschii, D. Bratu

[4] Brevet Ro 128065/29.05.2015: "Dispozitiv și metodă de monitorizare a calitații unui mediu acvatic prin analiza comportamentului unei populații de pești" Autori: E. Gheorghiu, C. Polonschii, D. Bratu

[5] Brevet RO 127854/29.08.2014: "Metodă de determinare a concentrației unor analiți prin aplicarea controlată a unui stimul periodic" Autor: E. Gheorghiu

[6] Brevet RO127853/30.07.2014: "Dispozitiv de determinare a concentrației unor microorganisme prin aplicarea controlată a unui stimul periodic", Autori: E Gheorghiu, M. S David, C Polonschii and D Bratu

[7] BI Ro120867/30.08.2006: "Metodă și dispozitiv de analiză a biosenzorilor" Autori: Eugen Gheorghiu, Mihaela Gheorghiu, Corina Balut, Dumitru Bratu

[8] BI Ro120790/28.07.2006: " Metodă de determinare a unor analiți, prin analiza impedanței de polarizare a interfeței traductor/probă" Autori: E. Gheorghiu, M.Gheorghiu, D. Bratu, A. Ursu

[9] BI Ro117986/29.11.2002: "Metodă de măsurare rapidă de înaltă precizie a impedanței în curent alternativ sinusoidal", Autori: E. Gheorghiu, D. Bratu, M. Gheorghiu, C. Balut

[10] BI Ro117877/30.08.2002: "Metodă de evidențiere a prezenței unor analiți într-un mediu lichid", Autori: E. Gheorghiu, M. Gheorghiu, C. Balut, D. Bratu

Cereri de Brevet (OSIM)

1) Cerere de Brevet OSIM: A/00772/2022, "Metodă și Dispozitiv de măsurare a intesității luminii și a diferenței de faza induse între două fascicule cu polarizari liniare, ortogonale, reflectate de o probă iluminată la unul, sau simultan, la mai multe unghiuri de incidență, cu un fascicul de lumina polarizat", Autori: E. Gheorghiu, M. S. David, M. Gheorghiu, C. Polonschii

Lista publicaţiilor (selecţie)

2) Cerere de Brevet OSIM: A/00788/2022, “Metodă de măsură a concentrației analitului țintă, fără utilizarea unei curbei de calibrare”, Autori: E. Gheorghiu, M. S. David, M. Gheorghiu, C. Polonschii

3) Cerere de Brevet OSIM: A/00693 din 18.11.2021, “Metodă de creștere a sensibilității analizelor care utilizează ghiduri optice de undă”, Autori: E. Gheorghiu, M. S. David, M. Gheorghiu, C. Polonschii,

4) Cerere de Brevet OSIM: A /00420/2018, Metodă și dispozitiv de detecție a unor compuşi bioactivi, de ex. citotoxici, utilizând senzori cu celule stimulate, Autori: M. Gheorghiu, E. Gheorghiu

1.Vasilescu A., Gáspár S., Gheorghiu M., Polonschii C, Banciu R.M., David S., Gheorghiu E., Marty J-L, Promising Solutions to Address the Non-Specific Adsorption in Biosensors Based on Coupled Electrochemical-Surface Plasmon Resonance Detection, Chemosensors, (2025), 13(3), 92; https://doi.org/10.3390/chemosensors13030092

2.Polonschii C., Rosu-Hamzescu M., David S., Oloumi A., Ursu D., Szardenings M, Kern K., El Salhi A., E., Gheorghiu E., Point-of-care personalized rapid diagnosis of allergies using peptide epitopes and SPR multiplexed detection, Sensors and Actuators B: Chemical, (2024), 418:136359, https://doi.org/10.1016/j.snb.2024.136359

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