MEMORIU ŞTIINŢIFIC

Drd. Niculae Andreea Roxana

Studii de doctorat

Perioada: 4 ani

Conducător ştiinţific: Prof. Dr. habil Raluca-Ioana van Staden

Domeniu: Chimie

Titlul tezei de doctorat: Rapid Food Scanning Techniques for Enhancing National Security

Activitate ştiinţifică

A. Lista de lucrări ştiinţifice (articole în reviste sau volume)

1. Sulfur-doped graphene based electrochemical sensors for fast and sensitive determination of (R)-(+)-Limonene from beverages, AR Niculae, RI Stefan-van Staden, JF van Staden, R Georgescu State Sensors, 22(15), 5851 https://doi.org/10.3390/s22155851, 2022 Q2

2. Electroanalysis of atrazine in water and beverages, AR Niculae, RI Stefan-van Staden, UPB Sci Bull, 86(1), 72-80, 2024.

3. Ultrasensitive and fast determination of ß-carotene in vegetables using stochastic sensors AR Niculae, RI Stefan-van Staden, JF van Staden, Anal.Lett., 58, 2820-2827, 2025 Q3.

4. Fast screening of biological and food samples using miniplatforms based on 3D stochastic microsensors AR Niculae, RI Stefan-van Staden, JF van Staden, RM Ilie-Mihai, Journal of the Electrochemical Society, 172, 077507, 2025 Q2.

5. Nanographene based electrochemical sensors for ultrasensitive determination of sorbic acid from bread and mayonnaise, RI Stefan-van Staden, AR Niculae, JF van Staden, P Sfirloaga, R State, Anal Bioanal Chem, 414(23), 6813–6824, 2022 Q1.

6. Ultrasensitive assay of atrazine in food and water samples, RI Stefan-van Staden, RA Niculae, JF van Staden, Electroanalysis, 35(12), e202300248, 2023 Q3.

7. Stochastic enantioselective microsensors used for enantioanalysis of limonene in Beverages, RI Stefan-van Staden, AR Niculae, JF van Staden, Journal of the Electrochemical Society, 171(9), 097514, 2024 Q1.

B. Participări la conferinţe/workshop-uri

1. Andreea-Roxana Niculae, Raluca-Ioana Stefan-van Staden, Jacobus (Koos) Frederick van Staden, Ultrasensitive assay of atrazine in food and water samples - poster, Transnational Multiplier event of REALME project - A Mixed Reality E-Learning Platform Dedicated for Medical Engineering, 18 – 19 OCTOBER 2023, National University of Science and Technology POLITEHNICA Bucharest.

2. Andreea-Roxana Niculae, Raluca-Ioana Stefan-van Staden, Fast screening of biological

and food samples using miniplatforms based on 3D stochastic microsensors - poster,

Transnational Multiplier event of REALME project - A Mixed Reality E-Learning Platform Dedicated for Medical Engineering, 18–19 OCTOBER 2023, National University of Science and Technology POLITEHNICA Bucharest.

3. Raluca-Ioana Stefan-van Staden, Andreea Roxana Niculae, Rasit Ergün Yukmel, Damaris-Cristina Gheorghe, Jacobus (Koos) Frederick van Staden, Sensitive platforms for fast on-site screening of food – oral presentation, Euroanalysis XXI, Geneva, Switzerland, 27-31 August, 2023.

3. Andreea-Roxana Niculae, Raluca-Ioana Stefan-van Staden, Jacobus (Koos) Frederick van Staden, Ultrasensitive assay of atrazine in food and water samples - poster, Euroanalysis XXI, Geneva, Switzerland, 27-31 August, 2023.

4. Andreea-Roxana Niculae, Raluca-Ioana Stefan-van Staden, Fast screening of biological and food samples using miniplatforms based on 3D stochastic microsensors - poster, Euroanalysis XXI, Geneva, Switzerland, 27-31 August, 2023.

5. Andreea Roxana Niculae, Raluca-Ioana Stefan-van Staden, Jacobus Frederick van Staden, Ruxandra-Maria Ilie-Mihai, Fast screening of biological and food samples using miniplatforms based on 3D stochastic microsensors – poster, Eurachem Workshop Complex Matrices: Applications, Laboratory Standards, and Accreditation, Bucharest, ROMANIA - May 26 – 27, 2025.

6. Andreea Roxana Niculae, Raluca-Ioana Stefan-van Staden, Jacobus (Koos) Frederick van Staden, Ultrasensitive and fast determination of ß-carotene in vegetables using stochastic sensors - poster, Eurachem Workshop Complex Matrices: Applications, Laboratory Standards, and Accreditation, Bucharest, ROMANIA - May 26 – 27, 2025.

C. Proiecte de cercetare ştiinţifică

1. Membra in echipa proiectului PN-III-P4-ID-PCE-2020-0059, New Improved Reliable Platforms with Modern Nano-Technology for On-Site Real-Time Detection in Automated Data-Intensive Process Monitor and Control Systems

Student-doctorand
Niculae Andreea Roxana