



Karolien De Wael

ABOUT ME

Prof. dr. Karolien De Wael is heading [A-Sense Lab](#) (Antwerp Electrochemical and Analytical Sciences Lab) at the University of Antwerp. The A-Sense Lab team counts 20+ experienced postdoc researchers, Ph.D. students and lab technicians and belongs to the Department of Bioscience Engineering of the Faculty of Sciences. A-Sense Lab links to the University's **Centre of Excellence NANOLab** and the **Industrial Research Fund (IOF) consortium Enviromics** with prof. dr. Karolien De Wael as co-promotor.

Prof. dr. Karolien De Wael obtained her Ph.D. in Chemistry at Ghent University (UGent) funded by the national science foundation (FWO) in 2005. Following an FWO postdoctoral fellowship on "bio-electrochemistry of proteins" at Ghent University, she started as tenure track research professor (analytical chemistry) at the University of Antwerp (UAntwerpen) in 2011. In 2020, she was appointed as **full professor (gewoon hoogleraar)**. In 2021, she was appointed as **Distinguished Visiting Professor** at Universităţii de Medicină și Farmacie „Iuliu Hațieganu” Cluj University in Romania.

From 2017, she is member of the IOF and Research Board (BOF-onderzoeksraad) at the University of Antwerp. K. De Wael is also a member of the FWO Chemistry panel since 2019. From 2014 to 2019, she was member of the Young Academy (Belgium). K. De Wael is **elected member of the Council of the Bio-Electrochemical Society (BES)** since 2019.

Since September 2021, K. De Wael is **chair of the Bioscience Engineering Department** (UAntwerpen).

The lab is collaborating with several worldwide leading labs in the field of electrochemistry and analytical chemistry. With over 3600 citations and an H-index 36 (google scholar), prof. Karolien De Wael published over 200 international articles in well reputed journals. In the past 5 years, she received **funding (national and EU) over €14M**. K. De Wael has been promotor of 22 successfully defended PhD's over the past 10 years. The lab has ample experience with patents, including 11 applications of which four were granted.

Prof. dr. K. De Wael is currently **chair of the Bioscience Engineering Department**, where her managerial skills steer the department towards growth in performance while maintaining a strong educational profile, and operational and interpersonal well-being, based on the **principles of deep democracy**. She successfully guided the department through the transition phase of integrating a new master in the organisational structure of the department.

WORK EXPERIENCE

Full Professor (gewoon hoogleraar)

Antwerp University [01/01/2020 – Current]

City: Antwerp

Country: Belgium

Spokesperson of the A-Sense Lab

A-Sense Lab (Antwerp Electrochemistry and Analytical Sciences) [01/01/2020 – Current]

City: Antwerp

Country: Belgium

Research Professor (hoogleraar)

Antwerp University [01/01/2018 – 31/12/2019]

City: Antwerp

Country: Belgium

Research Senior Lecturer (hoofddocent)

Antwerp University [28/03/2016 – 31/12/2017]

City: Antwerp

Country: Belgium

Research Lecturer (docent)

Antwerp University [28/03/2011 – 27/03/2016]

City: Antwerp

Country: Belgium

FWO Postdoctoral Fellow

[01/10/2005 – 27/03/2011]

EDUCATION AND TRAINING

PhD in Sciences: Chemistry

Faculty of Sciences/Department of Analytical Chemistry, Ghent University, BE [2005]

City: Ghent

Country: Belgium

Master in Chemistry, Greatest distinction

Faculty of Sciences/Department of Analytical Chemistry, Ghent University, BE [2001]

City: Ghent

Country: Belgium

HONOURS AND AWARDS

- Elected Member of the Young Academy in Belgium (2014-2019)
- The research activities of our group got several (poster) prizes at international conferences such as SMCBS, SMOBE, Young Chemistry Conference, e.g. EOS prize, BiR&D award
- KVCV-prize 2001 (best Chemistry student K. De Wael) (2001)
- Selection long list - Agoria thesis price (2015)

(CO-)PROMOTORSHIP OF DEFENDED PHD THESES

- Promotor of 23 defended PhDs since 2011

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

- Promotor of 11 ongoing PhDs of which 3 joint PhDs in an international collaboration
- Supervision of >20 postdoctoral fellows since 2011, currently 9 postdocs active in my research group
- Supervision of >10 Erasmus students
- Promotor of >20 Master students and >20 Bachelor students
- Daily supervision of 3 technicians

GRANTS

- >13 M€ (inter)national funding in the last 5 years
- Coordinator of 2 EU research projects (BorderSens, Plasmon Electrolight) and 3 MSCA fellows

VALORIZATION, EXCELLENCE & FACILITIES

Member of the Nanolab Center of Excellence and the Enviromics consortium (Industrial Research Fund) at the University of Antwerp

My research group is member of the Nanolab Center of Excellence and the Enviromics consortium (Industrial Research Fund) at the University of Antwerp. A well-equipped analytical laboratory could be established via national and EU funding (>10 potentiostats, eSEM-EDX, IR, HR Raman, portable Raman&IR, IC, XRF, XRD, LA-ICPMS, HPLC).

EXPERIENCE IN TEACHING

Teaching degree obtained

[2005]

Supervising exercise and practical sessions (Analytical Chemistry and Electrochemistry), UGent

[2001 – 2009]

Lecturer Inorganic Environmental Chemistry, UA

[2010 – 2012]

Lecturer Bachelor 1 (Chemistry, Bio-engineering and Biochemistry) General chemistry, UA

[2013 – Current]

Lecturer Bachelor 2 (Chemistry) Analytical Chemistry, UA

[2014 – Current]

Lecturer Bachelor 2 (Pharmacy) Pharmaceutical Analysis, UA

[2016 – 2018]

Lecturer Master 1 (Chemistry) Modern Electrochemical Analysis including sensors, UA

[2016 – Current]

ORGANIZATION OF SCIENTIFIC MEETINGS

- **Organizer of BES2022 in Antwerp, April 2022**

- **Organizer, full organization of her own event: SMOBE2018 ‘Summer Meeting On Bio-Electrochemistry’ (SMOBE) in Antwerp**

international event, link to the event:

<https://www.uantwerpen.be/en/conferences/summer-meeting-bioelectrochemistry/>

- **Organizer of the same SMOBE event, 2016 and 2015**
- **Organizer and full organization of the summer schools on bio-electrochemistry, 2012 and 2013**
- **Co-organizer of ISEAC-37 (International symposium on environmental analytical chemistry), May 2012, Antwerp**
- **Co-organizer European Workshop on Quantitative Analysis in X-ray Fluorescence Spectrometry in Ghent, October 2005**

INSTITUTIONAL RESPONSIBILITIES

President of the Bioscience Engineering Department

[2021 – Current]

Spokesperson of the A-Sense Lab (ca 20-25 members)

[2021 – Current]

Spokesperson of the AXES research group

[2011 – 2021]

Representative member of the Research Council of the Antwerp University, BE

[2021 – Current]

Representative member of the IOF (Industrial Research Fund), Antwerp University, BE

[2016 – Current]

Member of the Institute of Environment and Sustainable Development (IMDO), Antwerp University, BE

[2019 – Current]

Vice Chair Department, Department of Chemistry, Antwerp University, BE

[2015 – 2018]

Board member of Chemistry Department, Antwerp University, BE

[2014 – Current]

Secretary of the Exam Committee Chemistry, Antwerp University, BE

[2013 – Current]

Faculty member, Sciences, Antwerp University, BE

[2011 – Current]

Member of the Educational Board Chemistry, Biochemistry and Pharmaceutical Sciences, Antwerp University, BE

[2011 – Current]

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

Elected member of the Bio-Electrochemical Society Council

[2020 – Current]

Elected member of the FWO Chemistry panel

[2019 – Current]

Elected Member of the Young Academy BE

[2014 – 2019]

Member of the Bio-Electrochemical Society and the International Society of Electrochemistry

[2015 – Current]

PROJECTS

BorderSens

Border detection of illicit drugs and precursors by highly accurate electrosensors. Horizon 2020 - SU-BES02-2018-2019-2020 - Technologies to enhance border and external security (No 833787).

MSCA-IF

Unique multiarray immunosensor for the accurate quantification of the fertility window of women in saliva (Umay4women – No 101024231).

iBOF

A new photoelectrochemical singlet oxygen-based detection platform for a panel of cancer biomarkers in tissue and liquid biopsies (SOCan). This project aims to develop a photoelectrochemical methodology to detect DNA alterations and RNA biomarkers in patient samples.

POC Pandemic Preparedness

An innovative photoelectrochemical biosensor for pathogen detection (InnoPath). This project focuses on developing a photoelectrochemical detection strategy for the viral RNA of three common pathogens causing acute tropical fever (i.e. dengue virus, Zika virus and chikungunya virus).

FWO-SB

Improving diagnostic accuracy and follow-up of neuroendocrine neoplasms through detection of (epi)genetic biomarkers in liquid biopsies using novel technological platforms. This project focuses on developing two alternative multiplex assays, of which one is a photoelectrochemical platform, for epigenetic biomarkers. Thereby, this project will accelerate the use of epigenetic biomarkers (methylated DNA and copy number alterations), a young discipline, in cancer diagnosis.

PATENT PORTFOLIO

1. Electrochemical aptasensors with a gelatin B matrix (granted/EP20140737196)

[2013]

2. Transformed response potentiometric titrations (granted/EP15728021)

[2014]

3. Dual pH strategy (PCT/EP2018/078107)

[2017]

4. Methods and apparatus for detection of analytes using fluorinated phthalocyanines (PCT/EP2018/069101 and US62/532,118)

[2017]

5. Consumable for powder analysis (EP19194618)

[2019]

6. Primary amine sensing (EP19194726.6)

[2019]

7. Photo-electrochemical particle assay (EP21182783.7)

[2021]

PUBLICATIONS

"Kinetics and mechanism of the oxidation of sodium dithionite at a platinum electrode in alkaline solution"

[2003]

E. Gasana, P. Westbroek, **Karolien De Wael**, E. Temmerman, K. de Clerck, P. Kiekens

"Kinetics and mechanism of the oxidation of sodium dithionite at a platinum electrode in alkaline solution"

Journal of electroanalytical chemistry 2003 vol.: 553 issue: 31-dec pag.: 35-42

IF 2020 : 4,464

"Study of the deposition of a cobalt(II)tetrakisulfophthalocyanine layer at gold surfaces in alkaline solution"

[2004]

Karolien De Wael, Philippe Westbroek, Eduard Temmerman

"Study of the deposition of a cobalt(II)tetrakisulfophthalocyanine layer at gold surfaces in alkaline solution"

Journal of electroanalytical chemistry 2004 vol.: 567 issue: 2 pag.: 167-173

IF 2020 : 4,464

"Electrochemical detection of Cu(I) and Cu(II) in styrene media"

[2004]

Karolien De Wael, Philippe Westbroek, Joost de Strycker, Emmanuel Gasana, Eduardq Temmerman

"Electrochemical detection of Cu(I) and Cu(II) in styrene media"

Microchemical journal 2004 vol.: 77 issue: 1 pag.: 85-92

IF 2020 : 4,821

"Electrochemical deposition of 5,10,15,20-tetrakis-(4-sulphonatophenyl) porphyrin and its Co(II) derivative at a gold microelectrode array"

[2005]

Karolien De Wael, Annemie Adriaens, Eduard Temmerman

"Electrochemical deposition of 5,10,15,20-tetrakis-(4-sulphonatophenyl) porphyrin and its Co(II) derivative at a gold microelectrode array"

Analytica chimica acta 2005 vol.: 554 issue: 1-feb pag.: 60-65

IF 2020 : 6,558

"Comparison of different surface modification techniques for electrodes by means of electrochemistry and micro synchrotron radiation X-ray fluorescence : dimerization of cobalt(II) tetrasulfonated phthalocyanine and its influence on the electrodeposition on gold surfaces"

[2005]

Karl Peeters, **Karolien De Wael**, Laszlo Vincze, Annemie Adriaens

"Comparison of different surface modification techniques for electrodes by means of electrochemistry and micro synchrotron radiation X-ray fluorescence : dimerization of cobalt(II) tetrasulfonated phthalocyanine and its influence on the electrodeposition on gold surfaces"

Analytical chemistry 2005 vol.: 77 issue: 17 pag.: 5512-5519

IF 2020 : 6,986

"Electrocatalytic oxidation of dithionite at a cobalt(II)tetrasulfonated phthalocyanine and 5,10,15,20-tetrakis-(4-sulfonatophenyl)porphyrin cobalt(II) modified gold electrode in alkaline solution"

[2005]

Karolien De Wael, Philippe Westbroek, Eduard Temmerman

"Electrocatalytic oxidation of dithionite at a cobalt(II)tetrasulfonated phthalocyanine and 5,10,15,20-tetrakis-(4-sulfonatophenyl)porphyrin cobalt(II) modified gold electrode in alkaline solution"

Electroanalysis 2005 vol.: 17 issue: 3 pag.: 263-268

IF 2020 : 3,223

"Role of gold adatoms in the stability and electrochemical behavior of gold surfaces modified with phthalocyanines"

[2005]

Karolien De Wael, Philippe Westbroek, Annemie Adriaens, Eduard Temmerman

"Role of gold adatoms in the stability and electrochemical behavior of gold surfaces modified with phthalocyanines"

Journal of solid state electrochemistry 2005 vol.: 8 issue: 4 pag.: C65-C68

IF 2020 : 2,647

"Study of the deposition and Raman and XPS characterization of a metal ion tetrasulphonated phthalocyanine layer at gold surfaces : density functional theory calculations to model the vibrational spectra"

[2005]

Karolien De Wael, Philippe Westbroek, Patrick Bultinck, Diederik Depla, Peter Vandenabeele, Annemie Adriaens, Eduard Temmerman

"Study of the deposition and Raman and XPS characterization of a metal ion tetrasulphonated phthalocyanine layer at gold surfaces : density functional theory calculations to model the vibrational spectra"

Electrochemistry communications 2005 vol.: 7 issue: 1 pag.: 87-96

IF 2020 : 4,724

“Non-destructive characterization of CoTSPc electrochemically deposited on gold electrodes by means of synchrotron X-ray microfluorescence”

[2005]

Karl Peeters, **Karolien De Wael**, Annemie Adriaens, Gerald Falkenberg, Laszlo Vincze

“Non-destructive characterization of CoTSPc electrochemically deposited on gold electrodes by means of synchrotron X-ray microfluorescence”

Electrochemistry communications 2005 vol.: 7 issue: 11 pag.: 1157-1162

IF 2020 : 4,724

“Study of the deposition and characterisation of a 5,10,15,20-tetrakis-(4-sulphonatophenyl)porphyrin Co(II) layer at gold surfaces in alkaline solution”

[2005]

Karolien De Wael, Philippe Westbroek, Peter Vandenabeele, Annemie Adriaens, Eduard Temmerman

“Study of the deposition and characterisation of a 5,10,15,20-tetrakis-(4-sulphonatophenyl)porphyrin Co(II) layer at gold surfaces in alkaline solution”

Electrochimica acta 2005 vol.: 50 issue: 21 pag.: 4269-4274

IF 2020 : 6,901

“The electrochemical detection of Ru(II) in a methyl methacrylate solution”

[2006]

Karolien De Wael, Annemie Adriaens, duard Temmerman

“The electrochemical detection of Ru(II) in a methyl methacrylate solution”

Talanta 2006 vol.: 68 issue: 4 pag.: 1247-1251

IF 2020 : 6,057

“Quantitative synchrotron micro-XRF study of CoTSPc and CuTSPc thin-films deposited on gold by cyclic voltammetry”

[2007]

Karl Peeters, **Karolien De Wael**, Annemie Adriaens, gerald Falkenberg, Laszlo Vincze

“Quantitative synchrotron micro-XRF study of CoTSPc and CuTSPc thin-films deposited on gold by cyclic voltammetry”

Journal of analytical atomic spectrometry 2007 vol.: 22 issue: 5 pag.: 493-499

IF 2020 : 4,023

“Electrochemical and spectroscopic characterization of a gold electrode modified with 3,4',4'',4' prime copper(II) tetrasulphonated phthalocyanine”

[2007]

Karolien De Wael, Karl Peeters, David Bogaert, Hans Buschop, Laszlo Vincze, Annemie Adriaens

“Electrochemical and spectroscopic characterization of a gold electrode modified with 3,4',4'',4' prime copper(II) tetrasulphonated phthalocyanine”

Journal of electroanalytical chemistry 2007 vol.: 603 issue: 2 pag.: 212-218

IF 2020 : 4,464

“Phthalocyanines and porphyrins linked to gold adatoms and their catalytic property towards hydroxide oxidation”

[2008]

Karolien De Wael, Annemie Adriaens

“Phthalocyanines and porphyrins linked to gold adatoms and their catalytic property towards hydroxide oxidation”

Electrochimica acta 2008 vol.: 53 issue: 5 pag.: 2355-2361

IF 2020 : 6,901

“Ozonization and cyclic voltammetry as efficient methods for the regeneration of gelatin-coated SPR chips”

[2008]

Sandra van Vlierberghe, **Karolien De Wael**, Hans Buschop, Annemie Adriaens, Etienne Schacht, Peter Dubrueel

“Ozonization and cyclic voltammetry as efficient methods for the regeneration of gelatin-coated SPR chips”

Macromolecular bioscience 2008 vol.: 8 issue: 12 pag.: 1090-1097

IF 2020 : 4,979

"Electrochemical determination of hydrogen peroxide using *Rhodobacter capsulatus* cytochrome c peroxidase at a gold electrode"

[2008]

Karolien De Wael, Hans Buschop, Hendrik A. Heering, Lina de Smet, Jozef van Beeumen, Bart Devreese, Annemie Adriaens

"Electrochemical determination of hydrogen peroxide using *Rhodobacter capsulatus* cytochrome c peroxidase at a gold electrode"

Microchimica acta 2008 vol.: 162 issue: 1-feb pag.: 65-71

IF 2020 : 5,833

"The electrochemical detection of 4-chlorophenol at gold electrodes modified with different phthalocyanines"

[2008]

Karl Peeters, **Karolien De Wael**, David Bogaert, Annemie Adriaens

"The electrochemical detection of 4-chlorophenol at gold electrodes modified with different phthalocyanines"

Sensors and Actuators B-Chemical 2008 vol.: 128 issue: 2 pag.: 494-499

IF 2020 : 7,46

"Cobalt thin films on gold : a new reference material for the quantification of cobalt phthalocyanine and cobalt porphyrin modified gold electrodes with synchrotron radiation micro X-ray fluorescence spectroscopy"

[2008]

Annemie Adriaens, **Karolien De Wael**, David Bogaert, Hans Buschop, Tom Schoonjans, Bart Vekemans, Diederik Depla, Laszlo Vincze

"Cobalt thin films on gold : a new reference material for the quantification of cobalt phthalocyanine and cobalt porphyrin modified gold electrodes with synchrotron radiation micro X-ray fluorescence spectroscopy"

Spectrochimica acta part B-atomic spectroscopy 2008 vol.: 63 issue: 9 pag.: 988-991

IF 2020 : 3,752

"The influence of X-ray resonant Raman scattering effects on the detection of copper(II) tetrasulphonated phthalocyanine (CuTSPc) thin-films deposited on gold electrodes"

[2008]

Karl Peeters, **Karolien De Wael**, Annemie Adriaens, Gerald Falkenberg, Laszlo Vincze

"The influence of X-ray resonant Raman scattering effects on the detection of copper(II) tetrasulphonated phthalocyanine (CuTSPc) thin-films deposited on gold electrodes"

Spectrochimica acta part B-atomic spectroscopy 2008 vol.: 63 issue: 3 pag.: 450-454

IF 2020 : 3,752

"Comparison between the electrocatalytic properties of different metal ion phthalocyanines and porphyrins towards the oxidation of hydroxide"

[2008]

Karolien De Wael, Annemie Adriaens

"Comparison between the electrocatalytic properties of different metal ion phthalocyanines and porphyrins towards the oxidation of hydroxide"

Talanta 2008 vol.: 74 issue: 5 pag.: 1562-1567

IF 2020 : 6,057

"Immobilization of cytochrome *c* on cysteamine-modified gold electrodes with EDC as coupling agent"

[2008]

Karolien De Wael, Hans Buschop, Linda de Smet, Annemie Adriaens

"Immobilization of cytochrome *c* on cysteamine-modified gold electrodes with EDC as coupling agent"

Talanta 2008 vol.: 76 issue: 2 pag.: 309-313

IF 2020 : 6,057

"Surface characterization of a cross-linked cytochrome c film on cysteamine-modified gold electrodes"

[2009]

Karolien De Wael, Sandra van Vlierberghe, Hans Buschop, Peter Dubruel, Bart Vekemans, Etienne Schacht, Laszlo Vincze, Annemie Adriaens

"Surface characterization of a cross-linked cytochrome c film on cysteamine-modified gold electrodes"

Surface and interface analysis 2009 vol.: 41 issue: 5 pag.: 389-393

IF 2020 : 1,607

"Electrochemical deposition of dodecanoate on lead in view of an environmentally safe corrosion inhibition"

[2010]

Karolien De Wael, Michel de Keersmaecker, Mark Dowsett, David Walker, Pamela A. Thomas, Annemie Adriaens

"Electrochemical deposition of dodecanoate on lead in view of an environmentally safe corrosion inhibition"

Journal of solid state electrochemistry 2010 vol.: 14 issue: 3 pag.: 407-413

IF 2020 : 2,647

"Self-assembled supramolecular array of polymeric phthalocyanine on gold for the determination of hydrogen peroxide"

[2010]

Koodlur S. Lokesh, **Karolien De Wael**, Annemie Adriaens

"Self-assembled supramolecular array of polymeric phthalocyanine on gold for the determination of hydrogen peroxide"

Langmuir 2010 vol.: 26 issue: 22 pag.: 17665-17673

IF 2020 : 3,882

"Electrochemical study of gelatin as a matrix for the immobilization of horse heart cytochrome **c"**

[2010]

Karolien De Wael, Stijn De Belder, Sandra van Vlierberghe, Geert van Steenberge, Peter Dubruel, Annemie Adriaens

"Electrochemical study of gelatin as a matrix for the immobilization of horse heart cytochrome **c**"

Talanta 2010 vol.: 82 issue: 5 pag.: 1980-1985

IF 2020 : 6,057

"The electrochemistry of a gelatin modified gold electrode"

[2011]

Karolien De Wael, Annelies Verstraete, Sandra van Vlierberghe, Winnie Dejonghe, Peter Dubruel, Annemie Adriaens

"The electrochemistry of a gelatin modified gold electrode"

International journal of electrochemical science 2011 vol.: 6 issue: 6 pag.: 1810-1819

IF 2020 : 1,765

"Electrochemical deposition of a copper carboxylate layer on copper as potential corrosion inhibitor"

[2011]

Alice Elia, **Karolien De Wael**, Mark Dowsett, Annemie Adriaens

"Electrochemical deposition of a copper carboxylate layer on copper as potential corrosion inhibitor"

Journal of solid state electrochemistry 2011 vol.: 16 issue: 1 pag.: 143-148

IF 2020 : 2,647

"Evaluation of airborne particles at the Alhambra monument in Granada, Spain"

[2011]

Benjamin Horemans, Carolina Cardell, László Bencs, Velichka Kontozova-Deutsch, **Karolien De Wael**, René Van Grieken

"Evaluation of airborne particles at the Alhambra monument in Granada, Spain"

Microchemical journal 2011 vol.: 99 issue: 2 pag.: 429-438

IF 2020 : 4,821

“Urban air pollutants and their micro effects on medieval stained glass windows”

[2011]

Velichka Kontozova-Deutsch, Felix Deutsch, Ricardo H. M. Godoi, René Van Grieken, **Karolien De Wael**

“Urban air pollutants and their micro effects on medieval stained glass windows”

Microchemical journal 2011 vol.: 99 issue: 2 pag.: 508-513

IF 2020 : 4,821

“Optimization of the ion chromatographic quantification of airborne fluoride, acetate and formate in the Metropolitan Museum of Art, New York”

[2011]

Velichka Kontozova-Deutsch, Felix Deutsch, László Bencs, Agnieszka Krata, René Van Grieken, **Karolien De Wael**

“Optimization of the ion chromatographic quantification of airborne fluoride, acetate and formate in the Metropolitan Museum of Art, New York”

Talanta 2011 vol.: 86 issue: pag.: 372-376

IF 2020 : 6,057

“The use of potentiometric sensors to study (bio)molecular interactions”

[2012]

Karolien De Wael, Devin Daems, Guy Van Camp, Luc Jozef Nagels

“The use of potentiometric sensors to study (bio)molecular interactions”

Analytical chemistry 2012 vol.: 84 issue: 11 pag.: 4921-4927

IF 2020 : 6,986

“Aptasensing of chloramphenicol in the presence of its analogues : reaching the maximum residue limit”

[2012]

Sanaz Pilehvar, Jaytry Mehta, Freddy Dardenne, Johan Robbens, Ronny Blust, **Karolien De Wael**

“Aptasensing of chloramphenicol in the presence of its analogues : reaching the maximum residue limit”

Analytical chemistry 2012 vol.: 84 issue: 15 pag.: 6753-6758

IF 2020 : 6,986

“Electrochemical determination of hydrogen peroxide with cytochrome c peroxidase and horse heart cytochrome c entrapped in a gelatin hydrogel”

[2012]

Karolien De Wael, Qamar Bashir, Sandra van Vlierberghe, Peter Dubruel, Hendrik A. Heering, Annemie Adriaens

“Electrochemical determination of hydrogen peroxide with cytochrome c peroxidase and horse heart cytochrome c entrapped in a gelatin hydrogel”

Bioelectrochemistry 2012 vol.: 83 issue: pag.: 15-18

IF 2020 : 5,373

“Enzyme-gelatin electrochemical biosensors : scaling down”

[2012]

Karolien De Wael, Stijn De Belder, Sanaz Pilehvar, Geert Van Steenberghe, Wouter Herrebout, Hendrik A. Heering

“Enzyme-gelatin electrochemical biosensors : scaling down”

Biosensors 2012 vol.: 2 issue: pag.: 101-113

IF 2020 : 5,519

“Particle deposition in airways of chronic respiratory patients exposed to an urban aerosol”

[2012]

Benjamin Horemans, Cedric Van Holsbeke, Wim Vos, Larysa Darchuk, Velibor Novakovic, Angel C. Fontan, Jan de Backer, René Van Grieken, Wilfried De Backer, **Karolien De Wael**

“Particle deposition in airways of chronic respiratory patients exposed to an urban aerosol”

Environmental science and technology 2012 vol.: 46 issue: 21 pag.: 12162-12169

IF 2020 : 9,028

“Electrochemical sensing of phenicol antibiotics at gold”

[2012]

Sanaz Pilehvar, Freddy Dardenne, Ronny Blust, **Karolien De Wael**

“Electrochemical sensing of phenicol antibiotics at gold”

International journal of electrochemical science 2012 vol.: 7 issue: 6 pag.: 5000-5011

IF 2020 : 1,765

“Assessment of the air quality (NO_2 , SO_2 , O_3 and particulate matter) in the Plantin-Moretus Museum/Print Room in Antwerp, Belgium, in different seasons of the year”

[2012]

Barbara Krupińska, Anna Worobiec, Giuliana Gatto Rotondo, Velibor Novaković, Velichka Kontozova, Chul-Un Ro, René Van Grieken, **Karolien De Wael**

“Assessment of the air quality (NO_2 , SO_2 , O_3 and particulate matter) in the Plantin-Moretus Museum/Print Room in Antwerp, Belgium, in different seasons of the year”

Microchemical journal 2012 vol.: 102 issue: 1 pag.: 49-53

IF 2020 : 4,821

“Effect of operating and sampling conditions on the exhaust gas composition of small-scale power generators”

[2012]

Marianne Smits, Floris Vanpachtenbeke, Benjamin Horemans, **Karolien De Wael**, Birger Hauchecorne, Herman Van Langenhove, Kristof Demeestere, Silvia Lenaerts

“Effect of operating and sampling conditions on the exhaust gas composition of small-scale power generators”

PLoS ONE 2012 vol.: 7 issue: 2-jan pag.: e32825,1-e32825,10

IF 2020 : 3,24

“An N-myristoylated globin with a redox-sensing function that regulates the defecation cycle in *Caenorhabditis elegans*”

[2012]

Lesley Tilleman, Sasha De Henau, Martje Pauwels, Nora Nagy, Isabel Pintelon, Bart P. Braeckman, **Karolien De Wael**, Sabine Van Doorslaer, Dirk Adriaensen, Jean-Pierre Timmermans, Luc Moens, Sylvia Dewilde

“An N-myristoylated globin with a redox-sensing function that regulates the defecation cycle in *Caenorhabditis elegans*”

PLoS ONE 2012 vol.: 7 issue: 12 pag.: 1-sep

IF 2020 : 3,24

“The use of lead dodecanoate as an environmentally friendly coating to inhibit the corrosion of lead objects : comparison of three different deposition methods”

[2012]

Michel De Keersmaecker, **Karolien De Wael**, Annemie Adriaens

“The use of lead dodecanoate as an environmentally friendly coating to inhibit the corrosion of lead objects : comparison of three different deposition methods”

Progress in organic coatings 2012 vol.: 74 issue: 1 pag.: 1-jul

IF 2020 : 5,161

“ C_{60} -functionalized MWCNT based sensor for sensitive detection of endocrine disruptor vinclozolin in solubilized system and wastewater”

[2012]

Jahangir Ahmad Rather, **Karolien De Wael**

“ C_{60} -functionalized MWCNT based sensor for sensitive detection of endocrine disruptor vinclozolin in solubilized system and wastewater”

Sensors and Actuators B-Chemical 2012 vol.: 0 issue: pag.: 907-915

IF 2020 : 7,46

"Chemical boundary conditions for the classification of aerosol particles using computer controlled electron probe microanalysis"

[2012]

Willemien Anaf, Benjamin Horemans, René Van Grieken, **Karolien De Wael**

"Chemical boundary conditions for the classification of aerosol particles using computer controlled electron probe microanalysis"

Talanta 2012 vol.: 101 issue: pag.: 420-427

IF 2020 : 6,057

"Formation of metallic mercury during photodegradation/photodarkening of α -HgS : electrochemical evidence"

[2013]

Willemien Anaf, Koen Janssens, **Karolien De Wael**

"Formation of metallic mercury during photodegradation/photodarkening of α -HgS : electrochemical evidence"

Angewandte Chemie-international edition 2013 vol.: 52 issue: 48 pag.: 12568-12571

IF 2020 : 15,336

"Fullerene- β -cyclodextrin conjugate based electrochemical sensing device for ultrasensitive detection of p-nitrophenol"

[2013]

Jahangir Ahmad Rather, Pradip Debnath, **Karolien De Wael**

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IF 2020 : 3,223

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IF 2020 : 6,057

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IF 2020 : 4,616

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Analyst 2013 vol.: 238 issue: pag.: 204-210

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IF 2020 : 7,963

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IF 2020 : 7,963

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IF 2020 : 6,986

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IF 2020 : 10,618

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IF 2020 : 7,086

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IF 2020 : 2,826

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IF 2020 : 3,576

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IF 2020 : 7,46

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IF 2020 : 7,963

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IF 2020 : 6,986

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IF 2020 : 3,036

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IF 2020 : 3,223

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IF 2020 : 6,901

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IF 2020 : 3,576

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IF 2020 : 7,46

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IF 2020 : #N/A

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IF 2020 : 7,963

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IF 2020 : 6,986

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IF 2020 : 6,456

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[2017]

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IF 2020 : 3,739

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IF 2020 : 3,345

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[2017]

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IF 2020 : 4,023

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[2017]

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IF 2020 : 10,588

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IF 2020 : 4,155

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[2017]

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IF 2020 : 14,919

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[2017]

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IF 2020 : 3,676

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IF 2020 : 7,46

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Analytical chemistry 2018 vol.: 90 issue: 8 pag.: 5290-5297

IF 2020 : 6,986

"Tackling poor specificity of cocaine color tests by electrochemical strategies"

[2018]

Mats De Jong, Anca Florea, Joy Eliaerts, Filip Van Durme, Nele Samyn, **Karolien De Wael**

"Tackling poor specificity of cocaine color tests by electrochemical strategies"

Analytical chemistry 2018 vol.: 90 issue: 11 pag.: 6811-6819

IF 2020 : 6,986

"A simplified protocol for usage of new immuno-SERS probes for detection of casein, collagens and ovalbumin in cross-sections of artworks"

[2018]

Stepanka Hrdlickova Kuckova, Ezat Hamidi-Asl, Zdenek Sofer, Petr Marvan, **Karolien De Wael**, Jana Sanyova, Koen Janssens

"A simplified protocol for usage of new immuno-SERS probes for detection of casein, collagens and ovalbumin in cross-sections of artworks"

Analytical methods 2018 vol.: 10 issue: 9 pag.: 1054-1062

IF 2020 : 2,896

“Tailoring the functional properties of polyurethane foam with dispersions of carbon nanofiber for power generator applications”

[2018]

Suhasini Sathiyamoorthy, Greeshma Girijakumari, Prashant Kannan, Kathirvel Venugopal, Saranya Thiruvottriyur Shanmugam, Pandiyarasan Veluswamy, **Karolien De Wael**, Hiroya Ikeda

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Applied surface science 2018 vol.: 449 issue: pag.: 507-513

IF 2020 : 6,707

“A new opportunity for biomagnetic monitoring of particulate pollution in an urban environment using tree branches”

[2018]

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“A new opportunity for biomagnetic monitoring of particulate pollution in an urban environment using tree branches”

Atmospheric environment 2018 vol.: 190 issue: pag.: 177-187

IF 2020 : 4,798

“Techniques and applications of Surface-Enhanced Raman Scattering Spectroscopy (SERSS) focused on cultural heritage”

[2018]

Stepanka Kuckova, Ezat Hamidi-Asl, Irena Matulkova, Radovan Hynek, **Karolien De Wael**, Jana Sanyova, Koen Janssens

“Techniques and applications of Surface-Enhanced Raman Scattering Spectroscopy (SERSS) focused on cultural heritage”

Chemické listy 2018 vol.: 112 issue: 5 pag.: 312-316

IF 2020 : 0,381

“Bio(inspired) strategies for the electro-sensing of β -lactam antibiotics”

[2018]

F. Bottari, R. Blust, **Karolien De Wael**

“Bio(inspired) strategies for the electro-sensing of β -lactam antibiotics”

Current opinion in electrochemistry 2018 vol.: 10 issue: pag.: 136-142

IF 2020 : 7,271

“Electrochemical strategies for the detection of forensic drugs”

[2018]

Anca Florea, Mats De Jong, **Karolien De Wael**

“Electrochemical strategies for the detection of forensic drugs”

Current opinion in electrochemistry 2018 vol.: 11 issue: pag.: 34-40

IF 2020 : 7,271

“Optical readout of controlled monomer-dimer self-assembly”

[2018]

Pavel A. Tarakanov, Ekatarina N. Tarakanova, Pavel V. Dorovatovskii, Yan V. Zubavichus, Victor N. Khrustalev, Stanislav A. Trashin, **Karolien De Wael**, Margarita E. Neganova, Denis V. Mischenko, Jonathan L. Sessler, Pavel A. Stuzhin, Victor E. Pushkarev, La

“Optical readout of controlled monomer-dimer self-assembly”

Dalton Transactions 2018 vol.: 47 issue: 40 pag.: 14169-14173

IF 2020 : 4,39

“Practical tool for sampling and fast analysis of large cocaine seizures”

[2018]

J. Eliaerts, N. Meert, F. Van Durme, N. Samyn, **Karolien De Wael**, P. Dardenne

“Practical tool for sampling and fast analysis of large cocaine seizures”

Drug testing and analysis 2018 vol.: 10 issue: 6 pag.: 1039-1042

IF 2020 : 3,345

"Identifying intermediates in the reductive intramolecular cyclisation of allyl 2-bromobenzyl ether by an improved electron paramagnetic resonance spectroelectrochemical electrode design combined with density functional theory calculations"

[2018]

Danny Pauwels, H. Y. Vincent Ching, Mohammad Samanipour, Sander Neukermans, Jonas Hereijgers, Sabine Van Doorslaer, **Karolien De Wael**, Tom Breugelmans

"Identifying intermediates in the reductive intramolecular cyclisation of allyl 2-bromobenzyl ether by an improved electron paramagnetic resonance spectroelectrochemical electrode design combined with density functional theory calculations"

Electrochimica acta 2018 vol.: 271 issue: pag.: okt-18

IF 2020 : 6,901

"Biomonitoring of atmospheric particulate pollution via chemical composition and magnetic properties of roadside tree leaves"

[2018]

Fatemeh Kardel, Karen Wuyts, **Karolien De Wael**, Roeland Samson

"Biomonitoring of atmospheric particulate pollution via chemical composition and magnetic properties of roadside tree leaves"

Environmental Science and Pollution Research 2018 vol.: 25 issue: 26 pag.: 25994-26004

IF 2020 : 4,223

"Assessing the stability of arsenic sulfide pigments and influence of the binding media on their degradation by means of spectroscopic and electrochemical techniques"

[2018]

Marc Vermeulen, Koen Janssens, Jana Sanyova, Vanoushe Rahemi, Chris McGlinchey, **Karolien De Wael**

"Assessing the stability of arsenic sulfide pigments and influence of the binding media on their degradation by means of spectroscopic and electrochemical techniques"

Microchemical journal 2018 vol.: 138 issue: pag.: 82-91

IF 2020 : 4,821

"Polymer platforms for selective detection of cocaine in street samples adulterated with levamisole"

[2018]

Anca Florea, Todd Cowen, Sergey Piletsky, **Karolien De Wael**

"Polymer platforms for selective detection of cocaine in street samples adulterated with levamisole"

Talanta 2018 vol.: 186 issue: pag.: 362-367

IF 2020 : 6,057

"Unraveling the mechanisms behind the complete suppression of cocaine electrochemical signals by chlorpromazine, promethazine, procaine, and dextromethorphan"

[2019]

Mats De Jong, Nick Slegers, Anca Florea, Joren Van Loon, Alexander L. N. van Nuijs, Nele Samyn, **Karolien De Wael**

"Unraveling the mechanisms behind the complete suppression of cocaine electrochemical signals by chlorpromazine, promethazine, procaine, and dextromethorphan"

Analytical chemistry 2019 vol.: 91 issue: 24 pag.: 15453-15460

IF 2020 : 6,986

"Electrochemical strategies for adulterated heroin samples"

[2019]

Anca Florea, Jonas Schram, Mats De Jong, Joy Eliaerts, Filip Van Durme, Balwinder Kaur, Nele Samyn, **Karolien De Wael**

"Electrochemical strategies for adulterated heroin samples"

Analytical chemistry 2019 vol.: 91 issue: 12 pag.: 7920-7928

IF 2020 : 6,986

“Fast one-step ultrasensitive detection of toxocara canis antigens by a nanobody-based electrochemical magnetosensor”

[2019]

Francisco Morales-Yanez, Stanislav Trashin, Marie Hermy, Idalia Sariago, Katja Polman, Serge Muyldermans, **Karolien De Wael**

“Fast one-step ultrasensitive detection of toxocara canis antigens by a nanobody-based electrochemical magnetosensor”

Analytical chemistry 2019 vol.: 91 issue: 18 pag.: 11582-11588

IF 2020 : 6,986

“Optimized photoelectrochemical detection of essential drugs bearing phenolic groups”

[2019]

Liselotte Neven, Saranya Thiruvottriyur Shanmugam, Vanoushe Rahemi, Stanislav Trashin, Nick Slegers, Erik N. Carrion, Sergiu M. Gorun, **Karolien De Wael**

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Analytical chemistry 2019 vol.: 91 issue: 15 pag.: 9962-9969

IF 2020 : 6,986

“Cephalosporin antibiotics : electrochemical fingerprints and core structure reactions investigated by LC-MSMS”

[2019]

Nick Slegers, Alexander L. N. van Nuijs, Marco van den Berg, **Karolien De Wael**

“Cephalosporin antibiotics : electrochemical fingerprints and core structure reactions investigated by LC-MSMS”

Analytical chemistry 2019 vol.: 91 issue: jan-00 pag.: 2035-2041

IF 2020 : 6,986

“Disposable electrodes from waste materials and renewable sources for (bio) electroanalytical applications”

[2019]

Giulia Moro, Fabio Bottari, Joren Van Loon, Els Du Bois, **Karolien De Wael**, Ligia Maria Moretto

“Disposable electrodes from waste materials and renewable sources for (bio) electroanalytical applications”

Biosensors and bioelectronics 2019 vol.: 146 issue: pag.: jan-17

IF 2020 : 10,618

“Leaf-deposited semi-volatile organic compounds (SVOCs) : an exploratory study using GCxGC-TOFMS on leaf washing solutions”

[2019]

Ana Castanheiro, Pieter Joos, Karen Wuyts, **Karolien De Wael**, Roeland Samson

“Leaf-deposited semi-volatile organic compounds (SVOCs) : an exploratory study using GCxGC-TOFMS on leaf washing solutions”

Chemosphere 2019 vol.: 214 issue: pag.: 103-110

IF 2020 : 7,086

“Challenges in the electrochemical (bio)sensing of non-electroactive food and environmental contaminants”

[2019]

Giulia Moro, **Karolien De Wael**, Ligia Maria Moretto

“Challenges in the electrochemical (bio)sensing of non-electroactive food and environmental contaminants”

Current opinion in electrochemistry 2019 vol.: 16 issue: pag.: 57-65

IF 2020 : 7,271

“Electropolymerized o-phenylenediamine on graphite promoting the electrochemical detection of nafcillin”

[2019]

Fabio Bottari, Giulia Moro, Nick Slegers, Anca Florea, Todd Cowen, Sergey Piletsky, Alexander L. N. van Nuijs, **Karolien De Wael**

“Electropolymerized o-phenylenediamine on graphite promoting the electrochemical detection of nafcillin”

Electroanalysis 2019 vol.: issue:pag.:

IF 2020 : 3,223

"Nanoelectrode ensemble immunosensing for the electrochemical identification of ovalbumin in works of art"

[2019]

Chiara Gaetani, Giulia Gheno, Martina Borroni, **Karolien De Wael**, Ligia Maria Moretto, Paolo Ugo

"Nanoelectrode ensemble immunosensing for the electrochemical identification of ovalbumin in works of art"

Electrochimica acta 2019 vol.: 312 issue: pag.: 72-79

IF 2020 : 6,901

"A highly conductive fibre network enables centimetre-scale electron transport in multicellular cable bacteria"

[2019]

Filip J. R. Meysman, Rob Cornelissen, Stanislav Trashin, Robin Bonne, Silvia Hidalgo-Martinez, Jasper van der Veen, Carsten J. Blom, Cheryl Karman, Ji-Ling Hou, Raghavendran Thiruvallur Eachambadi, Jeanine S. Geelhoed, **Karolien De Wael**, Hubertus J. E. Bea

"A highly conductive fibre network enables centimetre-scale electron transport in multicellular cable bacteria"

Nature communications 2019 vol.: 10 issue: pag.:

IF 2020 : 14,919

"Novel phenyl-substituted pyrazinoporphyrazine complexes of rare-earth elements : optimized synthetic protocols and physicochemical properties"

[2019]

A. D. Kosov, T. V. Dubrinina, N. E. Borisova, A. V. Ivanov, K. A. Drozdov, S. A. Trashin, **Karolien De Wael**, M. S. Kotova, L. G. Tomilova

"Novel phenyl-substituted pyrazinoporphyrazine complexes of rare-earth elements : optimized synthetic protocols and physicochemical properties"

New journal of chemistry 2019 vol.: 43 issue: 7 pag.: 3153-3161

IF 2020 : 3,591

"Redesigning an electrochemical MIP sensor for PFOS : practicalities and pitfalls"

[2019]

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"Redesigning an electrochemical MIP sensor for PFOS : practicalities and pitfalls"

Sensors 2019 vol.: 19 issue: 20 pag.:

IF 2020 : 3,576

"Conductive imprinted polymers for the direct electrochemical detection of beta-lactam antibiotics: The case of cefquinome"

[2019]

Giulia Moro, Fabio Bottari, Nick Slegers, Anca Florea, Todd Cowen, Ligia Maria Moretto, Sergey Piletsky, **Karolien De Wael**

"Conductive imprinted polymers for the direct electrochemical detection of beta-lactam antibiotics: The case of cefquinome"

Sensors and Actuators B-Chemical 2019 vol.: 297 issue: pag.:

IF 2020 : 7,46

"Enzymatic sensor for phenols based on titanium dioxide generating surface confined ROS after treatment with H2O2"

[2019]

Vanoushe Rahemi, Stanislav Trashin, Zainab Hafideddine, Vera Meynen, Sabine Van Doorslaer, **Karolien De Wael**

"Enzymatic sensor for phenols based on titanium dioxide generating surface confined ROS after treatment with H2O2"

Sensors and Actuators B-Chemical 2019 vol.: 283 issue: pag.: 343-348

IF 2020 : 7,46

"Electrochemical analysis of cocaine in real samples based on electrodeposited biomimetic affinity ligands"

[2019]

Anca Florea, Todd Cowen, Sergey Piletsky, **Karolien De Wael**

"Electrochemical analysis of cocaine in real samples based on electrodeposited biomimetic affinity ligands"

Analyst 2019 vol.: 144 issue: 15 pag.: 4639-4646

IF 2020 : 4,616

"Enhanced photoelectrochemical detection of an analyte triggered by its concentration by a singlet oxygen-generating fluoro photosensitizer"

[2020]

Adrian Blidar, Stanislav Trashin, Erik N. Carrion, Sergiu M. Gorun, Cecilia Cristea, **Karolien De Wael**

"Enhanced photoelectrochemical detection of an analyte triggered by its concentration by a singlet oxygen-generating fluoro photosensitizer"

ACS sensors 2020 vol.: 5 issue: 11 pag.: 3501-3509

IF 2020 : 7,711

"Wearable electrochemical sensors for the monitoring and screening of drugs"

[2020]

Hazhir Teymourian, Marc Parrilla, Juliane R. Sempionatto, Felipe Noelia Montiel, Abbas Barfidokht, Robin Van Echelpoel, **Karolien De Wael**, Joseph Wang

"Wearable electrochemical sensors for the monitoring and screening of drugs"

ACS sensors 2020 vol.: 5 issue: 9 pag.: 2679-2700

IF 2020 : 7,711

"Unlocking the full power of electrochemical fingerprinting for on-site sensing applications"

[2020]

G. Moro, H. Barich, K. Driesen, N. Felipe Montiel, L. Neven, Camila Domingues Mendonça Verbinnen, S. Thiruvottriyur Shanmugam, E. Daems, **Karolien De Wael**

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Analytical and bioanalytical chemistry 2020 vol.: issue: pag.: jan-14

IF 2020 : 4,142

"Amperometric flow-injection analysis of phenols induced by reactive oxygen species generated under daylight irradiation of titania impregnated with horseradish peroxidase"

[2020]

Vanoushe Rahemi, Stanislav Trashin, Zainab Hafideddine, Sabine Van Doorslaer, Vera Meynen, Lo Gorton, **Karolien De Wael**

"Amperometric flow-injection analysis of phenols induced by reactive oxygen species generated under daylight irradiation of titania impregnated with horseradish peroxidase"

Analytical chemistry 2020 vol.: 92 issue: 5 pag.: 3643-3649

IF 2020 : 6,986

"Identifying electrochemical fingerprints of ketamine with voltammetry and LC-MS for its detection in seized samples"

[2020]

Jonas Schram, Marc Parrilla, Nick Slegers, Nele Samyn, Stefan M. Bijvoets, Marcel W. J. Heerschop, Alexander L. N. van Nuijs, **Karolien De Wael**

"Identifying electrochemical fingerprints of ketamine with voltammetry and LC-MS for its detection in seized samples"

Analytical chemistry 2020 vol.: 92 issue: 19 pag.: 13485-13492

IF 2020 : 6,986

"Leaf accumulation of atmospheric dust : biomagnetic, morphological and elemental evaluation using SEM, ED-XRF and HR-ICP-MS"

[2020]

Ana Castanheiro, Jelle Hofman, Gert Nuyts, Steven Joosen, Simo Spassov, Ronny Blust, Silvia Lenaerts, **Karolien De Wael**, Roeland Samson

"Leaf accumulation of atmospheric dust : biomagnetic, morphological and elemental evaluation using SEM, ED-XRF and HR-ICP-MS"

Atmospheric environment 2020 vol.: 221 issue: pag.:

IF 2020 : 4,798

“Covalent immobilization of delipidated human serum albumin on poly(pyrrole-2-carboxylic) acid film for the impedimetric detection of perfluorooctanoic acid”

[2020]

Giulia Moro, Fabio Bottari, Stefano Liberi, Sonia Covaceuszach, Alberto Cassetta, Alessandro Angelini, **Karolien De Wael**, Ligia Maria Moretto

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Bioelectrochemistry 2020 vol.: 134 issue: pag.:

IF 2020 : 5,373

“Unraveling the role of lattice substitutions on the stabilization of the intrinsically unstable $Pb_2Sb_2O_7$ pyrochlore : explaining the lightfastness of lead pyroantimonate artists' pigments”

[2020]

Andrea Marchetti, Rolando Saniz, Dileep Krishnan, Laura Rabbachin, Gert Nuyts, Steven De Meyer, Johan Verbeeck, Koen Janssens, Claudia Pelosi, Dirk Lamoen, Bart Partoens, **Karolien De Wael**

“Unraveling the role of lattice substitutions on the stabilization of the intrinsically unstable $Pb_2Sb_2O_7$ pyrochlore : explaining the lightfastness of lead pyroantimonate artists' pigments”

Chemistry of materials 2020 vol.: 32 issue: 7 pag.: 2863-2873

IF 2020 : 9,811

“Photoelectrochemistry for measuring the photocatalytic activity of soluble photosensitizers”

[2020]

Shahid Ullah Khan, Stanislav A. Trashin, Yuliya S. Korostei, Tatiana V. Dubinina, Larisa G. Tomilova, Sammy W. Verbruggen, **Karolien De Wael**

“Photoelectrochemistry for measuring the photocatalytic activity of soluble photosensitizers”

ChemPhotoChem 2020 vol.: issue:pag.:

IF 2020 : 3,849

“Integration of a photoelectrochemical cell in a flow system for quantification of 4-aminophenol with titanium dioxide”

[2020]

Camila D. Mendonça, Vanoushe Rahemi, Jonas Hereijgers, Tom Breugelmans, Sergio A. S. Machado, **Karolien De Wael**

“Integration of a photoelectrochemical cell in a flow system for quantification of 4-aminophenol with titanium dioxide”

Electrochemistry communications 2020 vol.: 117 issue: pag.:

IF 2020 : 4,724

“Tackling the problem of sensing commonly abused drugs through nanomaterials and (bio)recognition approaches”

[2020]

Florina Truta, Anca Florea, Andreea Cernat, Mihaela Tertis, Oana Hosu, **Karolien De Wael**, Cecilia Cristea

“Tackling the problem of sensing commonly abused drugs through nanomaterials and (bio)recognition approaches”

Frontiers in Chemistry 2020 vol.: 8 issue: pag.:

IF 2020 : 5,221

“Comparison of spectroscopic techniques combined with chemometrics for cocaine powder analysis”

[2020]

Joy Eliaerts, Natalie Meert, Pierre Dardenne, Vincent Baeten, Juan-Antonio Fernandez Pierna, Filip Van Durme, **Karolien De Wael**, Nele Samyn

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Journal of analytical toxicology 2020 vol.: 44 issue: 8 pag.: 851-860

IF 2020 : 3,367

"Assessing atmospheric dry deposition via water-soluble ionic composition of roadside leaves"

[2020]

Fatemeh Kardel, Karen Wuyts, **Karolien De Wael**, Roeland Samson

"Assessing atmospheric dry deposition via water-soluble ionic composition of roadside leaves"

Journal of environmental science and health : part A: toxic/hazardous substances and environmental engineering 2020 vol.: issue: pag.: 1-sep

IF 2020 : #N/A

"Do aptamers always bind? The need for a multifaceted analytical approach when demonstrating binding affinity between aptamer and low molecular weight compounds"

[2020]

Fabio Bottari, Elise Daems, Anne-Mare de Vries, Pieter Van Wielendaele, Stanislav Trashin, Ronny Blust, Frank Sobott, Annemieke Maddier, José C. Martins, **Karolien De Wael**

"Do aptamers always bind? The need for a multifaceted analytical approach when demonstrating binding affinity between aptamer and low molecular weight compounds"

Journal of the American Chemical Society 2020 vol.: 142 issue: 46 pag.: 19622-19630

IF 2020 : 15,419

"Novel 2-naphthyl substituted zinc naphthalocyanine : synthesis, optical, electrochemical and spectroelectrochemical properties"

[2020]

T. V. Dubinina, E. O. Moiseeva, D. A. Astvatsaturov, N. E. Borisova, P. A. Tarakanov, S. A. Trashin, **Karolien De Wael**, L. G. Tomilova

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New journal of chemistry 2020 vol.: 44 issue: 19 pag.: 7849-7857

IF 2020 : 3,591

"Electrochemical detection of Toxocara canis excretory-secretory antigens in children from rural communities in Esmeraldas Province, Ecuador : association between active infection and high eosinophilia"

[2020]

Francisco Morales-Yáñez, Stanislav Trashin, Idalia Sariego, Clémentine Roucher, Linda Paredis, Martha Chico, **Karolien De Wael**, Serge Muyldermans, Philip Cooper, Katja Polman

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Parasites and vectors 2020 vol.: 13 issue: 1 pag.: 1-jul

IF 2020 : 3,876

"Division of labor and growth during electrical cooperation in multicellular cable bacteria"

[2020]

Nicole M. J. Geerlings, Cheryl Karman, Stanislav Trashin, Karel S. As, Michiel V. M. Kienhuis, Silvia Hidalgo-Martinez, Diana Vasquez-Cardenas, Henricus T. S. Boschker, **Karolien De Wael**, Jack J. Middelburg, Lubos Polerecky, Filip J. R. Meysman

"Division of labor and growth during electrical cooperation in multicellular cable bacteria"

Proceedings of the National Academy of Sciences of the United States of America 2020 vol.: 117 issue: 10 pag.: 5478-5485

IF 2020 : 11,205

"Evaluation of a calibration transfer between a bench top and portable Mid-InfraRed spectrometer for cocaine classification and quantification"

[2020]

J. Eliaerts, N. Meert, P. Dardenne, F. Van Durme, V. Baeten, N. Samyn, **Karolien De Wael**

"Evaluation of a calibration transfer between a bench top and portable Mid-InfraRed spectrometer for cocaine classification and quantification"

Talanta 2020 vol.: 209 issue: pag.:

IF 2020 : 6,057

“Electrochemical analysis of speedball-like polydrug samples”

[2020]

Mats De Jong, Anca Florea, Devin Daems, Joren Van Loon, Nele Samyn, **Karolien De Wael**

“Electrochemical analysis of speedball-like polydrug samples”

Analyst 2020 vol.: 145 issue: 18 pag.: 6091-6096

IF 2020 : 4,616

“Impact of urban street canyon architecture on local atmospheric pollutant levels and magneto-chemical composition : an experimental study in Antwerp, Belgium”

[2020]

Jelle Hofman, Ana Castanheiro, Gert Nuyts, Steven Joosen, Simon Spassov, Ronny Blust, **Karolien De Wael**, Silvia Lenaerts, Roeland Samson, Simo Spassov

“Impact of urban street canyon architecture on local atmospheric pollutant levels and magneto-chemical composition : an experimental study in Antwerp, Belgium”

The science of the total environment 2020 vol.: 712 issue: pag.:

IF 2020 : 7,963

“Characterization of epicuticular wax structures on leaves of urban plant species and its association with leaf wettability”

[2020]

Samira Muhammad, Karen Wuyts, Gert Nuyts, **Karolien De Wael**, Roeland Samson

“Characterization of epicuticular wax structures on leaves of urban plant species and its association with leaf wettability”

Urban forestry and urban greening 2020 vol.: 47 issue: pag.:

IF 2020 : 4,537

“Atomic-level understanding for the enhanced generation of hydrogen peroxide by the introduction of an aryl amino group in polymeric carbon nitrides”

[2021]

Tong Zhang, Waldemar Schilling, Shahid Ullah Khan, H. Y. Vincent Ching, Can Lu, Jianhong Chen, Aleksander Jaworski, Giovanni Barcaro, Susanna Monti, **Karolien De Wael**, Adam Slabon, Shoubhik Das

“Atomic-level understanding for the enhanced generation of hydrogen peroxide by the introduction of an aryl amino group in polymeric carbon nitrides”

ACS Catalysis 2021 vol.: 11 issue: 22 pag.: 14087-14101

IF 2020 : 13,084

“Wearable self-powered electrochemical devices for continuous health management”

[2021]

Marc Parrilla, **Karolien De Wael**

“Wearable self-powered electrochemical devices for continuous health management”

Advanced functional materials 2021 vol.: 31 issue: 50 pag.: 1

IF 2020 : 18,808

“A benzocaine-induced local near-surface pH effect : influence on the accuracy of voltammetric cocaine detection”

[2021]

Mats De Jong, Nick Slegers, Jonas Schram, Devin Daems, Anca Florea, **Karolien De Wael**

“A benzocaine-induced local near-surface pH effect : influence on the accuracy of voltammetric cocaine detection”

Analysis and Sensing 2021 vol.: 1 issue: 1 pag.: 54-62

IF 2020 : #N/A

“Electrochemistry of intact versus degraded cephalosporin antibiotics facilitated by LC-MS analysis”

[2021]

Nick Slegers, Alexander L. N. van Nuijs, Marco van den Berg, **Karolien De Wael**

“Electrochemistry of intact versus degraded cephalosporin antibiotics facilitated by LC-MS analysis”

Analytical chemistry 2021 vol.: 93 issue: 4 pag.: 2394-2402

IF 2020 : 6,986

"Nanobody-based immunosensor detection enhanced by photocatalytic-electrochemical redox cycling"

[2021]

Stanislav Trashin, Francisco Morales-Yáñez, Saranya Thiruvottriyur Shanmugam, Linda Paredis, Erik N. Carrión, Idalia Sariago, Serge Muyldermans, Katja Polman, Sergiu M. Gorun, **Karolien De Wael**

"Nanobody-based immunosensor detection enhanced by photocatalytic-electrochemical redox cycling"

Analytical chemistry 2021 vol.: 93 issue: 40 pag.: 13606-13614

IF 2020 : 6,986

"Nanoscale analysis of historical paintings by means of O-PTIR spectroscopy : the identification of the organic particles in L'Arlésienne (portrait of Madame Ginoux) by Van Gogh"

[2021]

Victoria Beltran, Andrea Marchetti, Gert Nuyts, Margje Leeuwestein, Christophe Sandt, Ferenc Borondics, **Karolien De Wael**

"Nanoscale analysis of historical paintings by means of O-PTIR spectroscopy : the identification of the organic particles in L'Arlésienne (portrait of Madame Ginoux) by Van Gogh"

Angewandte Chemie-international edition 2021 vol.: 60 issue: 42 pag.: 22753-22760

IF 2020 : 15,336

"Gas phase photofuel cell consisting of WO₃- and TiO₂-photoanodes and an air-exposed cathode for simultaneous air purification and electricity generation"

[2021]

Myrthe Van Hal, Rui Campos, Silvia Lenaerts, **Karolien De Wael**, Sammy W. Verbruggen

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Applied catalysis B-environmental 2021 vol.: 292 issue: pag.:

IF 2020 : 19,503

"Towards developing a screening strategy for ecstasy : revealing the electrochemical profile"

[2021]

Saranya Thiruvottriyur Shanmugam, Robin Van Echelpoel, Griet Boeye, Joy Eliaerts, Mohammad Samanipour, H. Y. Vincent Ching, Anca Florea, Sabine Van Doorslaer, Filip Van Durme, Nele Samyn, Marc Parrilla, **Karolien De Wael**

"Towards developing a screening strategy for ecstasy : revealing the electrochemical profile"

ChemElectroChem 2021 vol.: 8 issue: 24 pag.: 4826-4834

IF 2020 : 4,59

"Tuning the turnover frequency and selectivity of photocatalytic CO₂ reduction to CO and methane using platinum and palladium nanoparticles on Ti-Beta zeolites"

[2021]

Natan Blommaerts, Nick Hoeven, Daniel Arenas Esteban, Rui Campos, Myrjam Mertens, Rituraj Borah, Antonella Glisenti, **Karolien De Wael**, Sara Bals, Silvia Lenaerts, Sammy W. Verbruggen, Pegie Cool

"Tuning the turnover frequency and selectivity of photocatalytic CO₂ reduction to CO and methane using platinum and palladium nanoparticles on Ti-Beta zeolites"

Chemical engineering journal 2021 vol.: 410 issue: pag.:

IF 2020 : 13,273

"Selectivity in ligand functionalization of photocatalytic metal oxide nanoparticles for phase transfer and self-assembly applications"

[2021]

Rituraj Borah, Rajeshreddy Ninakanti, Gert Nuyts, Hannelore Peeters, Adrián Pedraza-Tardajos, Silvia Nuti, Christophe Vande Velde, **Karolien De Wael**, Silvia Lenaerts, Sara Bals, Sammy W. Verbruggen

"Selectivity in ligand functionalization of photocatalytic metal oxide nanoparticles for phase transfer and self-assembly applications"

Chemistry-a European journal 2021 vol.: 27 issue: 35 pag.: 9011-9021

IF 2020 : 5,236

"Tetracycline antibiotics : elucidating the electrochemical fingerprint and oxidation pathway"

[2021]

Rocio Cánovas, Nick Slegers, Alexander L. N. van Nuijs, **Karolien De Wael**

"Tetracycline antibiotics : elucidating the electrochemical fingerprint and oxidation pathway"

Chemosensors 2021 vol.: 9 issue: 6-jan pag.:

IF 2020 : 3,398

"Synthesis and characterization of heteroleptic rare earth double-decker complexes involving tetradiazepinoporphyrazine and phthalocyanine macrocycles"

[2021]

Ekaterina N. Tarakanova, Pavel A. Tarakanov, Anton O. Simakov, Taniyuki Furuyama, Nagao Kobayashi, Dmitry V. Konev, Olga A. Goncharova, Stanislav A. Trashin, **Karolien De Wael**, Ilya V. Sulimenkov, Vasily V. Filatov, Viatcheslav I. Kozlovskiy, Larisa G. Tom

"Synthesis and characterization of heteroleptic rare earth double-decker complexes involving tetradiazepinoporphyrazine and phthalocyanine macrocycles"

Dalton Transactions 2021 vol.: 50 issue: 18 pag.: 6245-6255

IF 2020 : 4,39

"Electrochemical profiling and liquid chromatography-mass spectrometry characterization of synthetic cathinones : from methodology to detection in forensic samples"

[2021]

Jonas Schram, Marc Parrilla, Nick Slegers, Filip Van Durme, Jorrit van den Berg, Alexander L. N. van Nuijs, **Karolien De Wael**

"Electrochemical profiling and liquid chromatography-mass spectrometry characterization of synthetic cathinones : from methodology to detection in forensic samples"

Drug testing and analysis 2021 vol.: 13 issue: 7 pag.: 1282-1294

IF 2020 : 3,345

"Geranium lake pigments : the role of the synthesis on the structure and composition"

[2021]

Victoria Beltran, Andrea Marchetti, Steven De Meyer, Gert Nuyts, **Karolien De Wael**

"Geranium lake pigments : the role of the synthesis on the structure and composition"

Dyes and pigments 2021 vol.: 189 issue: pag.:

IF 2020 : 4,889

"Surface plasmon resonance-induced visible light photocatalytic TiO₂ modified with AuNPs for the quantification of hydroquinone"

[2021]

Camila D. Mendonça, Shahid U. Khan, Vanoushe Rahemi, Sammy W. Verbruggen, Sergio A. S. Machado, **Karolien De Wael**

"Surface plasmon resonance-induced visible light photocatalytic TiO₂ modified with AuNPs for the quantification of hydroquinone"

Electrochimica acta 2021 vol.: 389 issue: pag.:

IF 2020 : 6,901

"Local conversion of redox inactive molecules into redox active ones : a formaldehyde based strategy for the electrochemical detection of illicit drugs containing primary and secondary amines"

[2021]

Jonas Schram, Saranya Thiruvottriyur Shanmugam, Nick Slegers, Anca Florea, Nele Samyn, Alexander L. N. van Nuijs, **Karolien De Wael**

"Local conversion of redox inactive molecules into redox active ones : a formaldehyde based strategy for the electrochemical detection of illicit drugs containing primary and secondary amines"

Electrochimica acta 2021 vol.: 367 issue: pag.:

IF 2020 : 6,901

“Aptamers in biomedicine : selection strategies and recent advances”

[2021]

Geanina Stefan, Oana Hosu, **Karolien De Wael**, Maria Jesus Lobo-Castanon, Cecilia Cristea

“Aptamers in biomedicine : selection strategies and recent advances”

Electrochimica acta 2021 vol.: 376 issue: pag.:

IF 2020 : 6,901

“Morphological and elemental characterization of leaf-deposited particulate matter from different source types : a microscopic investigation”

[2021]

Ana Castanheiro, Karen Wuyts, Jelle Hofman, Gert Nuyts, **Karolien De Wael**, Roeland Samson

“Morphological and elemental characterization of leaf-deposited particulate matter from different source types : a microscopic investigation”

Environmental Science and Pollution Research 2021 vol.: 28 issue: 20 pag.: 25716-25732

IF 2020 : 4,223

“Electrochemical fingerprints of illicit drugs on graphene and multi-walled carbon nanotubes”

[2021]

Ana-Maria Dragan, Florina Maria Truta, Mihaela Tertis, Anca Florea, Jonas Schram, Andreea Cernat, Bogdan Feier, **Karolien De Wael**, Cecilia Cristea, Radu Oprean

“Electrochemical fingerprints of illicit drugs on graphene and multi-walled carbon nanotubes”

Frontiers in Chemistry 2021 vol.: 9 issue: pag.:

IF 2020 : 5,221

“Does leaf micro-morphology influence the recognition of particles on SEM images?”

[2021]

Samira Muhammad, Karen Wuyts, **Karolien De Wael**, Roeland Samson

“Does leaf micro-morphology influence the recognition of particles on SEM images?”

International Journal of Environmental Pollution and Remediation 2021 vol.: 9 issue: pag.: 22-37

IF 2020 : #N/A

“Voltammetric sensing using an array of modified SPCE coupled with machine learning strategies for the improved identification of opioids in presence of cutting agents”

[2021]

Dionisia Ortiz-Aguayo, **Karolien De Wael**, Manel del Valle

“Voltammetric sensing using an array of modified SPCE coupled with machine learning strategies for the improved identification of opioids in presence of cutting agents”

Journal of electroanalytical chemistry 2021 vol.: 902 issue: pag.:

IF 2020 : 4,464

“A covalently linked dyad based on zinc phthalocyanine and methylpheophorbide α : synthetic and physicochemical study”

[2021]

Irina O. Balashova, Alexander Yu Tolbin, Pavel A. Tarakanov, Alexei R. Krot, Kseniya V. Fedorova, Irina A. Sergeeva, Stanislav A. Trashin, **Karolien De Wael**, Victor E. Pushkarev, Mikhail O. Koifman, Gellii V. Ponomarev

“A covalently linked dyad based on zinc phthalocyanine and methylpheophorbide α : synthetic and physicochemical study”

Macroheterocycles 2021 vol.: 14 issue: 1 pag.: 40-50

IF 2020 : 1,2

“Photoactive layers for photovoltaics based on near-infrared absorbing aryl-substituted naphthalocyanine complexes : preparation and investigation of properties”

[2021]

Tatiana Dubinina, Sergey Maklakov, Elizaveta Petrusevich, Nataliya E. Borisova, Stanislav A. Trashin, **Karolien De Wael**, Larisa G. Tomilova

“Photoactive layers for photovoltaics based on near-infrared absorbing aryl-substituted naphthalocyanine complexes : preparation and investigation of properties”

New journal of chemistry 2021 vol.: 45 issue: 32 pag.: 14815-14821

IF 2020 : 3,591

“Electrochemical and spectroelectrochemical studies of tert-butyl-substituted aluminum phthalocyanine”

[2021]

Ekaterina O. Moiseeva, Stanislav Trashin, Yuliya S. Korostei, Shahid Ullah Khan, Anton D. Kosov, **Karolien De Wael**, Tatiana V. Dubinina, Larisa G. Tomilova

“Electrochemical and spectroelectrochemical studies of tert-butyl-substituted aluminum phthalocyanine”

Polyhedron 2021 vol.: 200 issue: pag.:

IF 2020 : 3,052

“Removal of a past varnish treatment from a 19th-century Belgian wall painting by means of a solvent-loaded double network hydrogel”

[2021]

Ehab Al-Emam, Victoria Beltran, Steven De Meyer, Gert Nuyts, Vera Wetemans, **Karolien De Wael**, Joost Caen, Koen Janssens

“Removal of a past varnish treatment from a 19th-century Belgian wall painting by means of a solvent-loaded double network hydrogel”

Polymers 2021 vol.: 13 issue: 16 pag.: jan-20

IF 2020 : 4,329

“Unveiling the binding mode of perfluorooctanoic acid to human serum albumin”

[2021]

Lorenzo Maso, Matteo Trande, Stefano Liberi, Giulia Moro, Elise Daems, Sara Linciano, Frank Sobott, Sonia Covaceuszach, Alberto Cassetta, Silvano Fasolato, Ligia M. Moretto, **Karolien De Wael**, Laura Cendron, Alessandro Angelini

“Unveiling the binding mode of perfluorooctanoic acid to human serum albumin”

Protein science 2021 vol.: 30 issue: 4 pag.: 830-841

IF 2020 : 6,725

“Enhanced electrochemical detection of illicit drugs in oral fluid by the use of surfactant-mediated solution”

[2021]

Marc Parrilla, Florine Joosten, **Karolien De Wael**

“Enhanced electrochemical detection of illicit drugs in oral fluid by the use of surfactant-mediated solution”

Sensors and Actuators B-Chemical 2021 vol.: 348 issue: pag.:

IF 2020 : 7,46

“Derivatization of amphetamine to allow its electrochemical detection in illicit drug seizures”

[2021]

Marc Parrilla, Felipe Noelia Montiel, Filip Van Durme, **Karolien De Wael**

“Derivatization of amphetamine to allow its electrochemical detection in illicit drug seizures”

Sensors and Actuators B-Chemical 2021 vol.: 337 issue: pag.:

IF 2020 : 7,46

“Novel electrochemiluminescent assay for the aptamer-based detection of testosterone”

[2021]

Rocio Cánovas, Elise Daems, Rui Campos, Sofie Schellinck, Annemieke Madder, José C. Martins, Frank Sobott, **Karolien De Wael**

"Novel electrochemiluminescent assay for the aptamer-based detection of testosterone"

Talanta 2021 vol.: 239 issue: pag.:

IF 2020 : 6,057

"Aptamer-ligand recognition studied by native ion mobility-mass spectrometry"

[2021]

Elise Daems, Debbie Dewaele, Konstantin Barylyuk, **Karolien De Wael**, Frank Sobott

"Aptamer-ligand recognition studied by native ion mobility-mass spectrometry"

Talanta 2021 vol.: 224 issue: pag.:

IF 2020 : 6,057

"The opportunity of 6-monoacetylmorphine to selectively detect heroin at preanodized screen printed electrodes"

[2021]

Felipe Noelia Montiel, Marc Parrilla, Victoria Beltran, Gert Nuyts, Filip Van Durme, **Karolien De Wael**

"The opportunity of 6-monoacetylmorphine to selectively detect heroin at preanodized screen printed electrodes"

Talanta 2021 vol.: 226 issue: pag.:

IF 2020 : 6,057

"Unlocking the full potential of voltammetric data analysis : a novel peak recognition approach for (bio)analytical applications"

[2021]

Robin Van Echelpoel, Mats de Jong, Devin Daems, Piet van Espen, **Karolien De Wael**

"Unlocking the full potential of voltammetric data analysis : a novel peak recognition approach for (bio)analytical applications"

Talanta 2021 vol.: 233 issue: pag.:

IF 2020 : 6,057

"Native mass spectrometry for the design and selection of protein bioreceptors for perfluorinated compounds"

[2021]

Elise Daems, Giulia Moro, Herald Berghmans, Ligia M. Moretto, Silvia Dewilde, Alessandro Angelini, Frank Sobott, **Karolien De Wael**

"Native mass spectrometry for the design and selection of protein bioreceptors for perfluorinated compounds"

Analyst 2021 vol.: 146 issue: 6 pag.: 2065-2073

IF 2020 : 4,616

"Mapping the gaps in chemical analysis for the characterisation of aptamer-target interactions"

[2021]

Elise Daems, Giulia Moro, Rui Campos, **Karolien De Wael**

"Mapping the gaps in chemical analysis for the characterisation of aptamer-target interactions"

Trends in analytical chemistry 2021 vol.: 142 issue: pag.:

IF 2020 : 12,296

"Analytical techniques for the detection of amphetamine-type substances in different matrices : a comprehensive review"

[2021]

Ana-Maria Drăgan, Marc Parrilla, Bogdan Feier, Radu Oprean, Cecilia Cristea, **Karolien De Wael**

"Analytical techniques for the detection of amphetamine-type substances in different matrices : a comprehensive review"

Trends in analytical chemistry 2021 vol.: 145 issue: pag.:

IF 2020 : 12,296

"Development of a combi-electrosensor for the detection of phenol by combining photoelectrochemistry and square wave voltammetry"

[2022]

Liselotte Neven, Hanan Barich, Nick Slegers, Rocio Cánovas, Gianni Debruyne, **Karolien De Wael**

"Development of a combi-electrosensor for the detection of phenol by combining photoelectrochemistry and square wave voltammetry"

Analytica chimica acta 2022 vol.: 1206 issue: pag.:

IF 2020 : 6,558

"Correlation between the fluorination degree of perfluorinated zinc phthalocyanines, their singlet oxygen generation ability, and their photoelectrochemical response for phenol sensing"

[2022]

Liselotte Neven, Hanan Barich, H. Y. Vincent Ching, Shahid U. Khan, Christopher Colomier, Hemantbhai H. Patel, Sergiu M. Gorun, Sammy Verbruggen, Sabine Van Doorslaer, **Karolien De Wael**

"Correlation between the fluorination degree of perfluorinated zinc phthalocyanines, their singlet oxygen generation ability, and their photoelectrochemical response for phenol sensing"

Analytical chemistry 2022 vol.: 94 issue: jan-00 pag.: 5221-5230

IF 2020 : 6,986

"Wearable wristband-based electrochemical sensor for the detection of phenylalanine in biofluids"

[2022]

Marc Parrilla, Andres Vanhooydonck, Regan Watts, **Karolien De Wael**

"Wearable wristband-based electrochemical sensor for the detection of phenylalanine in biofluids"

Biosensors and bioelectronics 2022 vol.: 197 issue: pag.:

IF 2020 : 10,618

"Singlet oxygen-based photoelectrochemical detection of DNA"

[2022]

Saranya Thiruvottriyur Shanmugam, Stanislav Trashin, **Karolien De Wael**

"Singlet oxygen-based photoelectrochemical detection of DNA"

Biosensors and bioelectronics 2022 vol.: 195 issue: pag.:

IF 2020 : 10,618

"The role of singlet oxygen, superoxide, hydroxide, and hydrogen peroxide in the photoelectrochemical response of phenols at a supported highly fluorinated zinc phthalocyanine"

[2022]

Liselotte Neven, Hanan Barich, Marius Pelmuş, Sergiu M. Gorun, **Karolien De Wael**

"The role of singlet oxygen, superoxide, hydroxide, and hydrogen peroxide in the photoelectrochemical response of phenols at a supported highly fluorinated zinc phthalocyanine"

ChemElectroChem 2022 vol.: 9 issue: 6 pag.:

IF 2020 : 4,59

"Rapid on-site detection of illicit drugs in smuggled samples with a portable electrochemical device"

[2022]

Marc Parrilla, Amorn Slosse, Robin Van Echelpoel, Felipe Noelia Montiel, Amelia R. Langley, Filip Van Durme, **Karolien De Wael**

"Rapid on-site detection of illicit drugs in smuggled samples with a portable electrochemical device"

Chemosensors 2022 vol.: 10 issue: 3 pag.: jan-16

IF 2020 : 3,398

"Real-time electrochemical screening of cocaine in lab and field settings with automatic result generation"

[2022]

Mats de Jong, Robin Van Echelpoel, Amelia R. Langley, Joy Eliaerts, Jorrit van den Berg, Mark De Wilde, Norbert Somers, Nele Samyn, **Karolien De Wael**

"Real-time electrochemical screening of cocaine in lab and field settings with automatic result generation"

Drug testing and analysis 2022 vol.:issue: pag.: jan-21

IF 2020 : 3,345

“Electrochemical detection of MDMA and 2C-B in ecstasy tablets using a selectivity enhancement strategy by in-situ derivatization”

[2022]

Robin Van Echelpoel, Ruben Kranenburg, Arian van Asten, **Karolien De Wael**

“Electrochemical detection of MDMA and 2C-B in ecstasy tablets using a selectivity enhancement strategy by in-situ derivatization”

Forensic chemistry 2022 vol.: 27 issue: pag.:

IF 2020 : 2,676

“Electrochemical identification of hazardous phenols and their complex mixtures in real samples using unmodified screen-printed electrodes”

[2022]

Hanan Barich, Rocio Cánovas, **Karolien De Wael**

“Electrochemical identification of hazardous phenols and their complex mixtures in real samples using unmodified screen-printed electrodes”

Journal of electroanalytical chemistry 2022 vol.: 904 issue: pag.:

IF 2020 : 4,464

“DNA binding by the antimalarial compound artemisinin”

[2022]

Sladjana Slavkovic, Aron A. Shoara, Zachary R. Churcher, Elise Daems, **Karolien De Wael**, Frank Sobott, Philip E. Johnson

“DNA binding by the antimalarial compound artemisinin”

Scientific reports 2022 vol.: 12 issue: 1 pag.:

IF 2020 : 4,379

“Resolution of opiate illicit drugs signals in the presence of some cutting agents with use of a voltammetric sensor array and machine learning strategies”

[2022]

Dionisia Ortiz-Aguayo, Xavier Ceto, **Karolien De Wael**, Manel del Valle

“Resolution of opiate illicit drugs signals in the presence of some cutting agents with use of a voltammetric sensor array and machine learning strategies”

Sensors and Actuators B-Chemical 2022 vol.: 357 issue: pag.:

IF 2020 : 7,46

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