

## PUBLICATIONS

38. ***Understanding the behavior of phenylurazole-tyrosine-click electrochemical reaction using hybrid electroanalytical techniques***  
R. C.T. Temgoua\*, F. T. Dontsi, **E. Lebègue**, C. Thobie-Gautier, I. K. Tonlé, M. Boujtita  
*Journal of Pharmaceutical and Biomedical Analysis*, 2024, 245, 116147.  
DOI: <https://doi.org/10.1016/j.jpba.2024.116147>
37. ***Exploring the effect of Shewanella oneidensis outer membrane redox proteins in the electrochemical response of single blocking impact events***  
H. Smida, A. Langlard, L. Thomas, C. Thobie-Gautier, M. Boujtita, R. O. Louro, C. M. Paquete, **E. Lebègue\***  
*Electrochimica Acta*, 2024, 488, 144235.  
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36. ***Allen J. Bard, Larry. R. Faulkner, Henry S. White: Electrochemical Methods: Fundamentals and Applications, 3rd edition, Wiley***  
**E. Lebègue\***  
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35. ***Trends in single-impact electrochemistry for bacteria analysis***  
H. Smida, A. Langlard, D. Ameline, C. Thobie-Gautier, M. Boujtita, **E. Lebègue\***  
*Analytical and Bioanalytical Chemistry*, 2023, 415 (18), 3717–3725.  
DOI: <https://doi.org/10.1007/s00216-023-04568-z>
34. ***Single Electrochemical Impacts of Shewanella oneidensis MR-1 Bacteria for Living Cells Adsorption onto a Polarized Ultramicroelectrode Surface***  
H. Smida, F.-X. Lefèvre, C. Thobie-Gautier, M. Boujtita, C. M. Paquete, **E. Lebègue\***  
*ChemElectroChem*, 2023, 10 (1), e202200906.  
DOI: <https://doi.org/10.1002/celec.202200906>
33. ***Recent Advances in Single Liposome Electrochemistry***  
H. Smida, C. Thobie-Gautier, M. Boujtita, **E. Lebègue\***  
*Current Opinion in Electrochemistry*, 2022, 36, 101141.  
DOI: <https://doi.org/10.1016/j.coelec.2022.101141>
32. ***Introducing... Estelle Lebègue (author profile)***  
**E. Lebègue\***  
*Angewandte Chemie International Edition*, 2022, 61 (6), e202116549.  
DOI: <https://doi.org/10.1002/anie.202116549>
31. ***Electrografted anthraquinone to monitor pH at the biofilm-anode interface in a wastewater microbial fuel cell***  
N. L. Costa, G. Olorounto, **E. Lebègue**, F. Barrière  
*Colloids and Surfaces B: Biointerfaces*, 2022, 210, 112274.  
DOI: <https://doi.org/10.1016/j.colsurfb.2021.112274>
30. ***Detection of Bacterial Rhamnolipid Toxin by Redox Liposome Single Impact Electrochemistry***  
J. Luy, D. Ameline, C. Thobie-Gautier, M. Boujtita, **E. Lebègue\***  
*Angewandte Chemie International Edition*, 2022, 61 (6), e202111416.  
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29. ***Conjuring up a ghost: structural and functional characterization of FhuF, a ferric siderophore reductase from E. coli***  
I. B. Trindade, G. Hernandez, **E. Lebègue**, F. Barrière, T. Cordeiro, M. Piccioli, R. O. Louro  
*Journal of Biological Inorganic Chemistry*, 2021, 26, 313-326.  
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28. ***Electrochemical Single Nano-Impacts of Electroactive Shewanella Oneidensis Bacteria Onto Carbon Ultramicroelectrode***  
**E. Lebègue\***, N. L. Costa, R. O. Louro, F. Barrière\*  
*Journal of The Electrochemical Society*, 2020, 167, 105501.  
DOI: <https://doi.org/10.1149/1945-7111/ab9e39>
27. ***Assisted lipid deposition by reductive electrochemical aryldiazonium grafting and insertion of the antiport NhaA protein in this stable biomimetic membrane***  
T. Flinois, **E. Lebègue**, A. Zebda, J.-P. Alcaraz, D.K. Martin, F. Barrière  
*Colloids and Surfaces B: Biointerfaces*, 2020, 190, 110924.  
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26. ***Lipid Membrane Permeability of Synthetic Redox DMPC Liposomes Investigated by Single Electrochemical Collisions***  
**E. Lebègue**, F. Barrière, A. J. Bard  
*Analytical Chemistry*, 2020, 92 (3), 2401–2408.  
DOI: <https://doi.org/10.1021/acs.analchem.9b02809>
25. ***Electrochemical properties of pH-dependent flavocytochrome c<sub>3</sub> from Shewanella putrefaciens adsorbed onto unmodified and catechol-modified edge plane pyrolytic graphite electrode***  
**E. Lebègue\***, N. L. Costa, B. M. Fonseca, R. O. Louro, F. Barrière\*  
*Journal of Electroanalytical Chemistry*, 2019, 847, 113232.  
DOI: <https://doi.org/10.1016/j.jelechem.2019.113232>
24. ***Redox active films of salicylic acid-based molecules as pH and ion sensors for monitoring ionophore activity in supported lipid deposits***  
T. Flinois, **E. Lebègue**, F. Barrière  
*Electrochimica Acta*, 2019, 313, 261-270.  
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23. ***Current trends for water treatment with microbial electrodes***  
T. Philippon, T. Flinois, **E. Lebègue**, N. L. Costa, F. Barrière, J. Rogińska, M. Etienne  
**Chapter 13 in Bioelectrochemistry Design and Applications of Biomaterials Ed. Serge Cosnier, 2019 Walter de Gruyter GmbH, Berlin/Boston.**  
DOI: <https://doi.org/10.1515/9783110570526-013>
22. ***Editorial: Special issue of BES 2017***  
N. Jaffrezic-Renault\*, **E. Lebègue\***  
*Bioelectrochemistry*, 2019, 127, 35-36.  
DOI: <https://doi.org/10.1016/j.bioelechem.2018.07.016>
21. ***Corrigendum to “Reductive electrografting of in situ produced diazopyridinium cations: Tailoring the interface between carbon electrodes and electroactive bacterial films” [Bioelectrochem. 120 (2018) 157–165]***  
H. Smida, **E. Lebègue**, M. Cortes, J.F. Bergamini, F. Barrière, C. Lagrost  
*Bioelectrochemistry*, 2019, 125, 70.  
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20. ***Biomimetic vesicles for electrochemical sensing***  
E. Lebègue\*, C. Farre, C. Jose, J. Saulnier, F. Lagarde, C. Chaix, N. Jaffrezic-Renault\*  
*Current Opinion in Electrochemistry*, 2018, 12, 101-106.  
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19. ***Electrochemical Detection of pH-Responsive Grafted Catechol and Immobilized Cytochrome c onto Lipid Deposit-Modified Glassy Carbon Surface***  
E. Lebègue\*, R. O. Louro, F. Barrière\*  
*ACS Omega*, 2018, 3 (8), 9035-9042.  
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18. ***Responsive Polydiacetylene Vesicles for Biosensing Microorganisms***  
E. Lebègue\*, C. Farre, C. Jose, J. Saulnier, F. Lagarde, Y. Chevalier, C. Chaix, N. Jaffrezic-Renault\*  
*Sensors*, 2018, 18, 599-615.  
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17. ***Reductive electrografting of in situ produced diazopyridinium cations: tailoring the interface between carbon electrodes and electroactive bacterial films***  
H. Smida, E. Lebègue, J.F. Bergamini, F. Barrière, C. Lagrost  
*Bioelectrochemistry*, 2018, 120, 157-165.  
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16. ***An optimal surface concentration of pure cardiolipin deposited onto glassy carbon electrode promoting the direct electron transfer of cytochrome-c***  
E. Lebègue\*, H. Smida, T. Flinois, V. Vié, C. Lagrost, F. Barrière\*  
*Journal of Electroanalytical Chemistry*, 2018, 808, 286-292.  
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15. ***Electrochemical Behavior of Pyridinium and N-Methyl Pyridinium Cations in Aqueous Electrolyte for CO<sub>2</sub> Reduction***  
E. Lebègue, J. Agullo, D. Bélanger  
*ChemSusChem*, 2018, 11, 219-228.  
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14. ***Microbial fuel cells – Wastewater utilization***  
H. Smida, T. Flinois, E. Lebègue, C. Lagrost, F. Barrière  
Reference Module in Chemistry, Molecular Sciences and Chemical Engineering  
***Encyclopedia of Interfacial Chemistry: Surface Science and Electrochemistry***  
K. Wandelt (Ed.), *Encyclopedia of Interfacial Chemistry*,  
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13. ***Millisecond Coulometry via Zeptoliter Droplet Collisions on an Ultramicroelectrode***  
J. E. Dick<sup>+</sup>, E. Lebègue<sup>+</sup>, L. M. Strawsine, A. J. Bard (<sup>+</sup> = equal contribution)  
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DOI: <https://doi.org/10.1002/elan.201600182>
12. ***Preparation of a tetrahydroxyphenazine-modified carbon as cathode material for supercapacitor in aqueous acid electrolyte***  
S. Legoupy, E. Lebègue, C. Cougnon  
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11. ***Electrochemical Detection of Single Phospholipid Vesicle Collisions at a Pt Ultramicroelectrode***  
E. Lebègue, C. M. Anderson, J. E. Dick, L. J. Webb, A. J. Bard  
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10. ***Effect of the Porous Texture of Activated Carbons on the Electrochemical Properties of Molecule-Grafted Carbon Products in Organic Media***  
E. Lebègue, C. Benoît, T. Brousse, J. Gaubicher, C. Cougnon  
*Journal of the Electrochemical Society*, 2015, 162, A2289-A2295.  
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9. ***Increasing the Affinity Between Carbon-Coated LiFePO<sub>4</sub>/C Electrodes and Conventional Organic Electrolyte by Spontaneous Grafting of a Benzene-Trifluoromethylsulfonimide Moiety***  
N. Delaporte, A. Perea, E. Lebègue, S. Ladouceur, K. Zaghbi, D. Bélanger  
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8. ***Impedance spectroscopy study of a catechol-modified activated carbon electrode as active material in electrochemical capacitor***  
C. Cougnon, E. Lebègue, G. Pognon  
*Journal of Power Sources*, 2015, 274, 551-559.  
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7. ***The Role of Surface Hydrogen Atoms in the Electrochemical Reduction of Pyridine and CO<sub>2</sub> in Aqueous Electrolyte***  
E. Lebègue, J. Agullo, M. Morin, D. Bélanger  
*ChemElectroChem*, 2014, 1, 1013-1017.  
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6. ***Toward fully organic rechargeable charge storage devices based on carbon electrodes grafted with redox molecules***  
E. Lebègue, T. Brousse, J. Gaubicher, R. Retoux, C. Cougnon  
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5. ***Chemical functionalization of activated carbon through radical and diradical intermediates***  
E. Lebègue, T. Brousse, J. Gaubicher, C. Cougnon  
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4. ***Spontaneous arylation of activated carbon from aminobenzene organic acids as source of diazonium ions in mild conditions***  
E. Lebègue, T. Brousse, J. Gaubicher, C. Cougnon  
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3. ***Direct introduction of redox centers at activated carbon substrate based on acid-substituent-assisted diazotization***  
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2. ***Modification of activated carbons based on diazonium ions in situ produced from aminobenzene organic acid without addition of other acid***  
**E. Lebègue**, L. Madec, T. Brousse, J. Gaubicher, E. Levillain, C. Cougnon  
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1. ***Polyol synthesis of nanosized Pt/C electrocatalysts assisted by pulse microwave activation***  
**E. Lebègue**, S. Baranton, C. Coutanceau  
*Journal of Power Sources*, 2011, 196, 920-927.  
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