

PUBLICATIONS

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.
DOI: <https://doi.org/10.1016/j.colsurfb.2020.110924>
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 c₃ 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.
DOI: <https://doi.org/10.1016/j.electacta.2019.05.023>
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.
DOI: <https://doi.org/10.1016/j.bioelechem.2018.07.012>

- 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.
DOI: <https://doi.org/10.1016/j.coelec.2018.06.005>
- 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.
DOI: <https://doi.org/10.1021/acsomega.8b01425>
- 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.
DOI: <http://www.mdpi.com/1424-8220/18/2/599>
- 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.
DOI: <https://doi.org/10.1016/j.bioelechem.2017.12.006>
- 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.
DOI: <https://doi.org/10.1016/j.jelechem.2017.12.024>
- 15.** *Electrochemical Behavior of Pyridinium and N-Methyl Pyridinium Cations in Aqueous Electrolyte for CO₂ Reduction*
E. Lebègue, J. Agullo, D. Bélanger
ChemSusChem, 2018, 11, 219-228.
DOI: <https://doi.org/10.1002/cssc.201701745>
- 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*, Elsevier, Oxford, 2018, pp. 328-336.
DOI: <https://doi.org/10.1016/B978-0-12-409547-2.13465-1>
- 13.** *Millisecond Coulometry via Zeptoliter Droplet Collisions on an Ultramicroelectrode*
J. E. Dick⁺, **E. Lebègue**⁺, L. M. Strawsine, A. J. Bard (⁺ = equal contribution)
Electroanalysis, 2016, 28, 2320-2328.
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
Electrochemistry Communications, 2016, 70, 47-50.
DOI: <https://doi.org/10.1016/j.elecom.2016.06.018>
- 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
Langmuir, 2015, 31 (42), 11734-11739.
DOI: <https://doi.org/10.1021/acs.langmuir.5b03123>
- 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.
DOI: <https://doi.org/10.1149/2.0481512jes>
- 9.** *Increasing the Affinity Between Carbon-Coated LiFePO₄/C Electrodes and Conventional Organic Electrolyte by Spontaneous Grafting of a Benzene-Trifluoromethylsulfonimide Moiety*
N. Delaporte, A. Perea, **E. Lebègue**, S. Ladouceur, K. Zaghib, D. Bélanger
ACS Applied Materials & Interfaces, 2015, 7 (33), 18519-18529.
DOI: <https://doi.org/10.1021/acsami.5b06184>
- 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.
DOI: <https://doi.org/10.1016/j.jpowsour.2014.10.091>
- 7.** *The Role of Surface Hydrogen Atoms in the Electrochemical Reduction of Pyridine and CO₂ in Aqueous Electrolyte*
E. Lebègue, J. Agullo, M. Morin, D. Bélanger
ChemElectroChem, 2014, 1, 1013-1017.
DOI: <https://doi.org/10.1002/celc.201402065>
- 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
Journal of Materials Chemistry A, 2014, 2, 8599-8602.
DOI: <https://doi.org/10.1039/C4TA00853G>
- 5.** *Chemical functionalization of activated carbon through radical and diradical intermediates*
E. Lebègue, T. Brousse, J. Gaubicher, C. Cougnon
Electrochemistry Communications, 2013, 34, 14-17.
DOI: <https://doi.org/10.1016/j.elecom.2013.05.014>

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
Electrochimica Acta, 2013, 88, 680-687.
DOI: <https://doi.org/10.1016/j.electacta.2012.10.132>
3. *Direct introduction of redox centers at activated carbon substrate based on acid-substituent-assisted diazotization*
E. Lebègue, T. Brousse, O. Crosnier, J. Gaubicher, C. Cougnon
Electrochemistry Communications, 2012, 25, 124-127.
DOI: <https://doi.org/10.1016/j.elecom.2012.09.034>
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
Journal of Materials Chemistry, 2011, 21, 12221-12223.
DOI: <https://doi.org/10.1039/C1JM11538C>
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.
DOI: <https://doi.org/10.1016/j.jpowsour.2010.08.107>