
Publications 2021

[2022](#) **2021** [2020](#)

H. Adabi, P. G. Santori, A. Shakouri, X. Peng, K. Yassin, I. G. Rasin, S. Brandon, D. R. Dekel, N. U. Hassan & **M.-T. Sougrati**

"Understanding how single-atom site density drives the performance and durability of PGM-free Fe-N-C cathodes in anion exchange membrane fuel cells"

Materials Today Advances 12 (**2021**) 100179

[DOI : 10.1016/j.mtadv.2021.100179](https://doi.org/10.1016/j.mtadv.2021.100179)

Andron I., Frayret C., Gaudon M., Fargues A., Durand E., **Duttine M.**, Toulemonde O. & Jubera V.

"Photo-activated emitting defects in the Ce-doped CaSnF6 fluoride."

Materials Research Bulletin 142 (**2021**) 111384 (10 p.)

[DOI : 10.1016/j.materresbull.2021.111384](https://doi.org/10.1016/j.materresbull.2021.111384)

A. El Ghali, M. Benzaazoua, H. Bouzahzah, **M. Abdelmoula**, J. Dynes & H. Jamieson

"Role of secondary minerals in the acid generating potential of weathered mine tailings : crystal-chemistry characterization and closed mine site management involvement"

Science of the total environment 784 (**2021**) 147105

[DOI : 10.1016/j.scitotenv.2021.147105](https://doi.org/10.1016/j.scitotenv.2021.147105)

J. C. Espinosa-Angeles, N. Goubard-Bretesché, E. Quarez, C. Payen, **M.-T. Sougrati**, O. Crosnier & T. Brousse

" Investigating the Cycling Stability of Fe₂WO₆ Pseudocapacitive Electrode Materials"

Nanomaterials 11 (**2021**) 1405

[DOI : 10.3390/nano11061405](https://doi.org/10.3390/nano11061405)

Fernande Grandjean & Gary J. Long

"Best Practices and Protocols in Mössbauer Spectroscopy"

Chemistry of Materials XXX (**2021**) XXX-XXX

[DOI : 10.1021/acs.chemmater.1c00326](https://doi.org/10.1021/acs.chemmater.1c00326)

C. Haouari, A. G. Squires, R. Berthelot, **L. Stievano**, **M. T. Sougrati**, B. J. Morgan, O. I. Lebedev, A. Iadecola, O. J. Borkiewicz & D. Dambournet

" Impact of Solution Chemistry on Growth and Structural Features of Mo-Substituted Spinel Iron Oxides"

Inorganic Chemistry 60 (**2021**) 7217-7227

L. Jiao, J. Li, L. L. Richard, Q. Sun, T. Stracensky, E. Liu, **M. T. Sougrati**, Z. Zhao, F. Yang & S. Zhong
" Chemical vapour deposition of Fe-N-C oxygen reduction catalysts with full utilization of dense Fe-N₄ sites"
Nature Materials 20 (**2021**) 1385-1391
DOI : [10.1038/s41563-021-01030-2](https://doi.org/10.1038/s41563-021-01030-2)

Jiaying Jin, Mi Yan, Wang Chen, Wenying Zhang, Zhiheng Zhang, Lizhong Zhao, Guohua Bai, & **Jean-Marc Greneche**
"Grain boundary engineering towards high-figure-of-merit Nd-Ce-Fe-B sintered magnets : Synergetic effects of (Nd, Pr)H_x and Cu co-dopants"
Acta Materialia 204 (**2021**) 116529
DOI : [10.1016/j.actamat.2020.116529](https://doi.org/10.1016/j.actamat.2020.116529)

Jaskiran Kaur, Manpreet Kaur, Manpreet Kaur Ubhi, Mavneet Kaur & **Jean-Marc Greneche**
"Composition optimization of activated carbon-iron oxide nanocomposite for effective removal of Cr(VI) ions"
Materials Chemistry and Physics 258 (**2021**) 124002
DOI : [10.1016/j.matchemphys.2020.124002](https://doi.org/10.1016/j.matchemphys.2020.124002)

Kaze C. R., Lecomte-Nana G., Kamseu E., **Sanz Camacho P.**, Yorkshire A. S., Provis J. L., **Duttine M.**, **Wattiaux A.** & Melo U. C.
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" Topotactically constructed nickel-iron (oxy) hydroxide with abundant in-situ produced high-valent iron species for efficient water oxidation"
Journal of Energy Chemistry 57 (**2021**) 212-218
DOI : [10.1016/j.jechem.2020.09.014](https://doi.org/10.1016/j.jechem.2020.09.014)

B. Li, **M. T. Sougrati**, G. Rousse, A. V. Morozov, R. Dedryvére, A. Iadecola, A. Senyshyn, L. Zhang, A. M. Abakumov & M.-L. Doublet
" Correlating ligand-to-metal charge transfer with voltage hysteresis in a Li-rich rock-salt compound exhibiting anionic redox"
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" Metal Oxide Clusters on Nitrogen-Doped Carbon are Highly Selective for CO₂ Electroreduction to CO"

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[DOI : 10.1021/acscatal.1c01702](https://doi.org/10.1021/acscatal.1c01702)

C. s. Z. Loyola, G. Abarca, S. Ureta-Zanartu, C. Aliaga, J. H. Zagal, **M. T. Sougrati**, F. Jaouen, W. Orellana & F. Tasca

" Insights into the electronic structure of Fe penta-coordinated complexes. Spectroscopic examination and electrochemical analysis for the oxygen reduction and oxygen evolution reactions"

Journal of Materials Chemistry A 9 (2021) 23802-23816

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D. Pchelina, V. Sedykh, N. Chistyakova, V. Rusakov, Y. Alekhina, A. Tselebrovskiy, B. Fraisse, **L. Stievano** & **M. T. Sougrati**

" Alkaline-earth metal-doped perovskites La_{0.95}A_{0.05}MnO₃+[′] (A= Ca, Sr) : New structural and magnetic features revealed by ⁵⁷Fe Mössbauer spectroscopy and magnetic measurements"

Journal of Physics and Chemistry of Solids 159 (2021) 110268

[DOI : 10.1016/j.jpcs.2021.110268](https://doi.org/10.1016/j.jpcs.2021.110268)

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W. J Wang, F. Robert, S Peterson, S. Ha , L. Scudiero, R. Coustel, M. Mallet, **M. Abdelmoula** & **C. Ruby**

"Iron-Iron Oxide Supported Palladium Nanoparticles for the Interconversion of Formate and Carbon Dioxide"

Chemical Engineering journal 427 (2021) 131763

[DOI : 10.1016/j.cej.2021.131763](https://doi.org/10.1016/j.cej.2021.131763)

Y. Wang, M. J. Larsen, S. Rojas, **M.-T. Sougrati**, F. Jaouen, P. Ferrer, D. Gianolio & S. Berthon-Fabry
"Influence of the synthesis parameters on the proton exchange membrane fuel cells performance of Fe-N-C aerogel catalysts"
Journal of Power Sources 514 (2021) 230561
[DOI : 10.1016/j.jpowsour.2021.230561](https://doi.org/10.1016/j.jpowsour.2021.230561)

Wu, J., Dacquin, J.-P., **Cordier, C.**, Dujardin, P. & Granger, P.
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Applied Catalysis B ; environmental 282 (2021) 119621-119638.
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A. Zegeye, C. Carteret, M. Mallet, D. Billet, T. Ferte, C.S. Chang, T. Hauet, **M. Abdelmoula**
"Effect of Sb on Biogenic Minerals precipitation during the reduction of Sb bearing Ferrihydrite"
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[DOI : 10.1016/j.gca.2021.06.021](https://doi.org/10.1016/j.gca.2021.06.021)

Y. Zeng, X. Li, J. Wang, **M. T. Sougrati**, Y. Huang, T. Zhang & B. Liu
"In situ/operando Mössbauer spectroscopy for probing heterogeneous catalysis"
Chem Catalysis 1 (2021) 1215-1233
[DOI : 10.1016/j.checat.2021.08.013](https://doi.org/10.1016/j.checat.2021.08.013)

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