
Publications 2019

[2021](#) [2020](#) **2019**

Al-Jabeiri, M., Mallet, M., Greenwell, C., **Abdelmoula, M.** & Ruby, C.

"Using Ca-Fe layered double hydroxide transformation to optimize phosphate removal from waste waters"

Applied Clay Science 182 (2019) 105281

[DOI : 10.1016/j.clay.2019.105281](https://doi.org/10.1016/j.clay.2019.105281)

Burbano, M., **Duttine, M.**, Morgan, B. J., Borkiewicz, O., Chapman, K. W., **Wattiaux, A.**, Demourgues, A., Groult, H., Salanne, M. & Dambournet, D.

"Impact of anion vacancies on the local and electronic structures of iron-based oxyfluoride electrodes."

J. Phys. Chem. Lett. 10(1) (2019) 107-112.

[DOI : 10.1021/acs.jpcllett.8b03503](https://doi.org/10.1021/acs.jpcllett.8b03503)

G. Coquil, B. Fraisse, S. Biscaglia, D. Ayme-Perrot, **M. T. Sougrati** & L. Monconduit

"ZnSnSb₂ anode : A solid solution behavior enabling high rate capability in Li-ion batteries"

Journal of Power Sources 441 (2019) 227165

[DOI : 10.1016/j.jpowsour.2019.227165](https://doi.org/10.1016/j.jpowsour.2019.227165)

Duttine, M., Wattiaux, A., Balima, F., Decorse, C., Moutaabbid, H., Ryan, D. H. & **Bonville, P.**

"Modulated magnetic structure in 57Fe doped orthorhombic YbMnO₃ : A Mössbauer study."

AIP Adv. 9(3) (2019) 035008.

[DOI : 10.1063/1.5077005](https://doi.org/10.1063/1.5077005)

M. Fehse, D. Bessas, A. Darwiche, A. Mahmoud, G. Rahamim, C. La Fontaine, R. P. Hermann, D. Zitoun, L. Monconduit, **L. Stievano** & **M. T. Sougrati**

"The Electrochemical Sodiation of FeSb₂ : New Insights from Operando Fe-57 Synchrotron Mossbauer and X-Ray Absorption Spectroscopy"

Batteries & Supercaps 2 (2019) 66-73

[DOI : 10.1002/batt.201800075](https://doi.org/10.1002/batt.201800075)

M. Fehse, A. Iadecola, **M. T. Sougrati**, P. Conti, M. Giorgetti & **L. Stievano**

"Applying chemometrics to study battery materials : Towards the comprehensive analysis of complex operando datasets"

Energy Storage Materials 18 (2019) 328-337

[DOI : 10.1016/j.ensm.2019.02.002](https://doi.org/10.1016/j.ensm.2019.02.002)

V. Gabaudan, R. Berthelot, **M. T. Sougrati**, **P. E. Lippens**, L. Monconduit & **L. Stievano**

"SnSb vs. Sn : improving the performance of Sn-based anodes for K-ion batteries by synergetic alloying with Sb"

Journal of Materials Chemistry A 7 (2019) 15262-15270

[DOI : 10.1039/c9ta03760h](https://doi.org/10.1039/c9ta03760h)

Garcia, Y.

"Editor's comments"

Moess. Eff. Data Ref. J. 42(1) (2019) 1.

Jebli, S., Ben Hamed, T., Lebraud, É., Pechev, S., Étienne, L., Gaudon, M., **Duttine, M.**, **Wattiaux, A.**, Ben Amara, M. & Toulemonde, O.

"Synthesis, crystal structure, Mössbauer spectroscopy, optical and magnetic properties of Cs₂M₂Fe(PO₄)₃ (M = Mn, Co, Ni, Cu) ordered pollucite structure."

J. Solid State Chem. 270 (2019) 265-272.

[DOI : 10.1016/j.jssc.2018.11.009](https://doi.org/10.1016/j.jssc.2018.11.009)

E. M. Kombaya-Touckia-Linin, S. Gaucel, **M. T. Sougrati**, **L. Stievano**, N. Gontard & V. Guillard

"Elaboration and Characterization of Active Films Containing Iron-Montmorillonite Nanocomposites for O₂ Scavenging"

Nanomaterials 9 (2019) 1193

[DOI : 10.3390/nano9091193](https://doi.org/10.3390/nano9091193)

E. M. Kombaya-Touckia-Linin, S. Gaucel, **M. T. Sougrati**, K. Khederlou, N. Pen, **L. Stievano**, N. Gontard & V. Guillard

"Hybrid iron montmorillonite nano-particles as an oxygen scavenger"

Chemical Engineering Journal 357 (2019) 750-760

[DOI : 10.1016/j.cej.2018.09.164](https://doi.org/10.1016/j.cej.2018.09.164)

Kpannieu, D. E., Mallet, M., Coulibaly, L., **Abdelmoula, M.** & Ruby, C.

"Phosphate removal from water by naturally occurring shale, sandstone and laterite : the role of iron oxides and soluble species"

Comptes rendus - Geoscience 351(1) (2019) 37-47

[DOI : 10.1016/j.crte.2018.09.004](https://doi.org/10.1016/j.crte.2018.09.004)

J. Li, Q. Y. Jia, S. Mukerjee, **M. T. Sougrati**, G. Drazic, A. Zitolo & F. Jaouen

"The Challenge of Achieving a High Density of Fe-Based Active Sites in a Highly Graphitic Carbon Matrix"

Catalysts 9 (2019) 144

[DOI : 10.3390/catal9020144](https://doi.org/10.3390/catal9020144)

J. K. Li, S. Bruller, D. C. Sabarirajan, N. Ranjbar-Sahraie, **M. T. Sougrati**, S. Cavaliere, D. Jones, I. V. Zenyuk, A. Zitolo & F. Jaouen

"Designing the 3D Architecture of PGM-Free Cathodes for H₂/Air Proton Exchange Membrane Fuel Cells"

Mederos-Henry, F., Mahin, J., Pichon, B. P., Dîrtu, M. M., **Garcia, Y.**, Delcorte, A., Bailly, C., Huynen, I. & Hermans, S.

"Highly Efficient Wideband Microwave Absorbers Based on Zero-Valent Fe@³-Fe₂O₃ and Fe/Co/Ni Carbon-Protected Alloy Nanoparticles Supported on Reduced Graphene Oxide"

Nanomaterials 9 (2019) 1196.

T. Mineva, I. Matanovic, P. Atanassov, **M. T. Sougrati**, **L. Stievano**, M. Clemancey, A. Kochem, J. M. Latour & F. Jaouen

"Understanding Active Sites in Pyrolyzed Fe-N-C Catalysts for Fuel Cell Cathodes by Bridging Density Functional Theory Calculations and Fe-57 Mossbauer Spectroscopy"

Acs Catalysis 9 (2019) 9359-9371

[DOI : 10.1021/acscatal.9b02586](https://doi.org/10.1021/acscatal.9b02586)

Rakotomalala Robinson, M., **Abdelmoula, M.**, Mallet, M. & Coustel, R.

"Starch functionalized magnetite nanoparticles : new insight into the structural and magnetic properties"

Journal of Solid State Chemistry 277 (2019) 587-593

[DOI : 10.1016/j.jssc.2019.06.033](https://doi.org/10.1016/j.jssc.2019.06.033)

S. Ratso, **M. T. Sougrati**, M. Kaarik, M. Merisalu, M. Rahn, V. Kisand, A. Kikas, P. Paiste, J. Leis, V. Sammelseg, F. Jaouen & K. Tammeveski

"Effect of Ball-Milling on the Oxygen Reduction Reaction Activity of Iron and Nitrogen Co-doped Carbide-Derived Carbon Catalysts in Acid Media"

Acs Applied Energy Materials 2 (2019) 7952-7962

[DOI : 10.1021/acsaem.9b01430](https://doi.org/10.1021/acsaem.9b01430)

S. Saha, G. Assat, **M. T. Sougrati**, D. Foix, H. F. Li, J. Vergnet, S. Turi, Y. Ha, W. L. Yang, J. Cabana, G. Rouse, A. M. Abakumov and J. M. Tarascon

"Exploring the bottlenecks of anionic redox in Li-rich layered sulfides"

Nature Energy 4 (2019) 977-987

[DOI : 10.1038/s41560-019-0493-0](https://doi.org/10.1038/s41560-019-0493-0)

Salles, C., Steil, M.-C., Fouletier, J., **Duttine, M.**, **Wattiaux, A.** & Marinha, D.

"Long-term stability of iron-doped calcium titanate CaTi_{0.9}Fe_{0.1}O₃ oxygen transport membranes under non-reactive and reactive atmospheres."

J. Membr. Sci. 583 (2019) 171-179.

[DOI : 10.1016/j.memsci.2019.04.049](https://doi.org/10.1016/j.memsci.2019.04.049)

D. C. Shi, Q. F. Yang, C. Peterson, A. F. Lamic-Humblot, J. S. Girardon, A. Griboval-Constant, **L. Stievano**, **M. T. Sougrati**, V. Briois, P. A. J. Bagot, R. Wojcieszak, S. Paul & E. Marceau

"Bimetallic Fe-Ni/SiO₂ catalysts for furfural hydrogenation : Identification of the interplay between Fe and Ni during deposition-precipitation and thermal treatments"

Catalysis Today 334 (2019) 162-172

[DOI : 10.1016/j.cattod.2018.11.041](https://doi.org/10.1016/j.cattod.2018.11.041)

Stasiak, T., Nilamegam Kumaran, S., Touzin, M., Béclin, F. & **Cordier, C.**

"Novel Multicomponent Powders from AlCrFeMnMo Family Synthesized by Mechanical Alloying"

Advanced Engineering Materials 21 (2019) 1-5.

[DOI : 10.1002/adem.201900808](https://doi.org/10.1002/adem.201900808)

Wu, J., Dacquin, **Cordier, C.**, Dujardin, P. & Granger, P.

"Optimization of the Composition of Perovskite Type Materials for Further Elaboration of Four-Way Catalysts for Gasoline Engine"

Topics in Catalysis 62(1-4) (2019) 368-375.

[DOI : 10.1007/s11244-018-1083-2](https://doi.org/10.1007/s11244-018-1083-2)

Xue, S., Rotaru, A. & **Garcia, Y.**

"Ligand field strength tuning in the model [Fe(H₂Bpz₂)₂(bipy)] spin crossover complex"

Hyperfine Interact. 240 (2019) 91.

W. J. Yao, A. R. Armstrong, X. L. Zhou, **M. T. Sougrati**, P. Kidkhunthod, S. Tunmee, C. H. Sun, S. Sattayaporn, P. Lightfoot, B. F. Ji, C. L. Jiang, N. Z. Wu, Y. B. Tang & H. M. Cheng

"An oxalate cathode for lithium ion batteries with combined cationic and polyanionic redox"

Nature Communications 10 (2019) 3483

[DOI : 10.1038/s41467-019-11077-0](https://doi.org/10.1038/s41467-019-11077-0)

Yin, Z., Dideriksen, K., **Abdelmoula, M.**, Ruby, C., Michel, F. M., Bjerrum, M. J. & Hansen, H. C.

"Structure of single sheet iron oxides produced from surfactant interlayered green rusts"

Applied clay science 170 (2019) 86-96

[DOI : 10.1016/j.clay.2019.01.009](https://doi.org/10.1016/j.clay.2019.01.009)

R. H. Zhang, N. Dubouis, M. Ben Osman, W. Yin, **M. T. Sougrati**, D. A. D. Corte, D. Giaume & A. Grimaud

"A Dissolution/Precipitation Equilibrium on the Surface of Iridium-Based Perovskites Controls Their Activity as Oxygen Evolution Reaction Catalysts in Acidic Media"

Angewandte Chemie-International Edition 58 (2019) 4571-4575

[DOI : 10.1002/anie.201814075](https://doi.org/10.1002/anie.201814075)

[2021](#) [2020](#) **2019**