

1. Hamzah Bakhti , Thomas Weyrich , Martha Es-Souni , Ayoub Laghrissi , Mohammed Es-Souni, Non-fouling polymer films on hard-anodized aluminum substrates: Nanomechanical properties and modelling, *Progress in Organic Coatings* 2021, 161, 106553
<https://doi.org/10.1016/j.porgcoat.2021.106553>.
2. Mohammed Es-Souni, Supported binary and ternary nanoalloy nanoparticle catalysts-A green processing approach using the Leidenfrost layer as nanoreactor, *Nano Ex.* 2021, 2, 020013
<https://doi.org/10.1088/2632-959X/abfd8d>
3. Ayoub Laghrissi, Mohammed Es-Souni, A TiN@Au-NR Plasmonic Structure with Tunable Surface Plasmon Resonance Depending on TiN to Au Thickness Ratio, *Plasmonics* 2021, 16, 49-57 <https://doi.org/10.1007/s11468-020-01254-z>
4. Hamzah Bakhti, Ayoub Laghrissi, Artjom Roth, Lahcen Azrar, Mohammed Es-Souni, Nanomechanical characterization and modeling of anodized porous aluminum oxide thin films with photografted anti-biofouling polymer brushes on their pore walls, *Applied Nanoscience*, 2020, 10, 2139–2151, <https://doi.org/10.1007/s13204-020-01338-6>
5. Najat Magouh, Matthias Dietze, Hamzah Bakhti, Claus-Henning Solterbeck, Lahcen Azrar, Mohammed Es-Souni, Finite element analysis and EMA predictions of the dielectric and pyroelectric properties of 0-3 Pz59/PVDF-TrFE composites with experimental validation, *Sensors and Actuators*, 2020, A310, 112073, <https://doi.org/10.1016/j.sna.2020.112073>
6. Salih Veziroglu, Anna-Lena Obermann, Marie Ullrich, Majid Hussain, Marius Kamp, Lorenz Kienle, Till Leißner, Horst-Günter Rubahn, Oleksandr Polonskyi, Thomas Strunskus, Jacek Fiutowski, Mohammed Es-Souni, Jost Adam, Franz Faupel, Oral Cenk Aktas, Photodeposition of Au Nanoclusters for Enhanced Photocatalytic Dye Degradation over TiO₂ Thin Film, *ACS Applied Materials & Interfaces*, 2020, 12, 13, 14983-14992, DOI: 10.1021/acsami.9b18817
7. Matthias Dietze and Mohammed Es-Souni, Large Area Thick Films of PVDF-TrFE and Relaxor-Ceramics for Piezo- and Pyroelectric Applications, *Macromol. Mater. Eng.* 2019, 304, 1900538, DOI: 10.1002/mame.201900538
8. Matthias Dietze and Mohammed Es-Souni, Dielectric and pyroelectric properties of thick and thin film relaxor-ceramic/PVDF-TrFE composites, *Funct. Compos. Struct.* 1 (2019) 035005 , <https://doi.org/10.1088/2631-6331/ab3d7a>
9. Nele Berger, Ayoub Laghrissi, Yee Yan Tay, Thirumany Sriharan , Jacek Fiutowski, Horst-Günter Rubahn and Mohammed Es-Souni , Formation of Si Nanorods and Discrete Nanophases by Axial Diffusion of Si from Substrate into Au and AuPt Nanoalloy Nanorods, *Nanomaterials* 2020, 10, 68; doi:10.3390/nano10010068
10. Ayoub Laghrissi and Mohammed Es-Souni, Porous PtPd alloy nanotubes: towards high performance electrocatalysts with low Pt-loading, *Catal. Sci. Technol.*, 2019, 9, 4355, DOI: 10.1039/c9cy01145e
11. Martha Es-Souni, Ekram Wassel, Matthias Dietze, Ayoub Laghrissi, Florian Klöhn, Thomas Weyrich, Mohammed Es-Souni, Processing of nanotubes on NiTi-shape memory alloys and their modification with photografted anti-adhesive polymer brushes. Towards smart implant surfaces, *Materials and Design* 2019, 182, 108031 , <https://doi.org/10.1016/j.matdes.2019.108031>
12. Ayoub Laghrissi, Mohammed Es-Souni, Layered Au-Pd-Au nanorod catalysts: Pd-layer thickness effects on catalyst performance, *International Journal of Hydrogen Energy*, 44 (2019) 14918-14926, <https://doi.org/10.1016/j.ijhydene.2019.04.105>
13. Ekram Wassel, Martha Es-Souni, Ayoub Laghrissi, Artjom Roth, Matthias Dietze, Mohammed Es-Souni, Scratch resistant non-fouling surfaces via grafting non-fouling polymers on the pore walls of supported porous oxide structures, *Materials and Design* 163 (2019) 107542 , <https://doi.org/10.1016/j.matdes.2018.107542>
14. Ekram Wassel, Martha Es-Souni, Matthias Dietze, Ayoub Laghrissi, Mohammed Es-Souni, A non-fouling multilayer structure based on LAPONITE[®]/PEG-Brushes showing high stiffness

- and hardness, *Progress in Organic Coatings*, 2019, 132, 108-115,
<https://doi.org/10.1016/j.porgcoat.2019.03.036>
15. A. Laghrissi, C.-H. Solterbeck, D. Schopf, M. Es-Souni
[*Noble metal NPs and nanoalloys by sonochemistry directly processed on nanocarbon and TiN substrates from aqueous solutions*](#)
Ultrasonics - Sonochemistry, 2018, DOI 10.1016/j.ultsonch.2018.10.034
16. D. Schopf, U. Gro Nielsen, M. Es-Souni
[*In situ processing of fluorinated carbon – Lithium fluoride nanocomposites*](#)
Materials & Design, 2018, 158, 106-112, DOI 10.1016/j.matdes.2018.08.021
17. E. Wassel, Ma. Es-Souni, N. Berger, D. Schopf, M. Dietze, C.-H. Solterbeck and M. Es-Souni
[*Nanocomposite Films of Laponite/ PEG-Grafted Polymers and Polymer Brushes with Non-Fouling Properties*](#)
Langmuir, 2017, DOI 10.1021/acs.langmuir.7b00534
18. D. Schopf and M. Es-Souni
Thin Film Nanocarbon Composites for Supercapacitor Applications
Carbon, 2017, 115, 449-459, DOI 10.1016/j.carbon.2017.01.027
19. N. Berger and M. Es-Souni
[*Understanding and Shaping the Morphology of the Barrier Layer of Supported Porous Anodized Alumina on Gold Underlayer*](#)
Langmuir 2016, DOI 10.1021/acs.langmuir.6b01732
20. N. Berger, S. Habouti, H.-G. Rubahn and M. Es-Souni
[*On-substrate fabrication of porous Al₂O₃ templates with tunable pore diameters and interpore distances*](#)
Applied Physics A, 2016, 122, 192, DOI 10.1007/s00339-016-9729-z
21. A. Lahmar, A. Benchaabane, M. Aderdour, A. Zeinert and M. Es-Souni
[*Temperature influence on microstructure and optical properties of TiO₂-Au thin films*](#)
Applied Physics A, 2016, 122, 137, DOI 10.1007/s00339-016-9681-y
22. F. Dar, K. Moonosawmy, M. Es-Souni,
Morphology and property control of NiO nanostructures for supercapacitor applications
Nanoscale Research Letters, 2013, 8, 363
23. D. Schopf and M. Es-Souni
[*Supported porous carbon and carbon-CNT nanocomposites for supercapacitor applications*](#)
Applied Physics A, 2016, 122, 203, DOI 10.1007/s00339-016-9730-6
24. L. Luo, M. Dietze, Cl.-H. Solterbeck, M. Es-Souni, and H. Luo
Orientation and phase transition dependence of the electrocaloric effect in 0.71PbMg_{1/3}Nb_{2/3}O₃-0.29PbTiO₃ single crystal
Appl. Phys. Lett., 2012, 101 (6), 062907, Doi: 10.1063/1.4745185
25. M. Dietze, H. Katzke, M. Es-Souni, N. Neumann, and H.-S. Luo
Single domain vs. polydomain [111] 0.72Pb(Mg_{1/3}Nb_{2/3})O₃-0.28PbTiO₃ single crystal. Polarization switching, dielectric and pyroelectric properties
Appl. Phys. Lett., 2012, 100 (24), 242905, Doi: 10.1063/1.4729749
26. H. Katzke, M. Dietze, A. Lahmar, M. Es-Souni, N. Neumann, and S.-G. Lee
Dielectric, ultraviolet/visible, and Raman spectroscopic investigations of the phase transition sequence in 0.71Pb(Mg_{1/3}Nb_{2/3})O₃-0.29PbTiO₃ crystals
Phys. Rev. B, 2011, 83, 174115
27. R. Minch, and M. Es-Souni
On substrate, self-standing hollow-wall Pt and PtRu-nanotubes and their electrocatalytic behavior
Chem. Commun., 2011, 47, 6284-6286
28. S. Habouti, M. Mátéfi-Tempfli, C.-H. Solterbeck, Ma. Es-Souni, S.Mátéfi-Tempfli, and M. Es-Souni
Self-standing corrugated Ag and Au-nanorods for plasmonic applications
J. Mater. Chem., 2011, 21 (17), 6269-6273

29. R. Minch, and M. Es-Souni
A versatile approach to processing of high active area pillar coral- and sponge-like Pt-nanostructures. Application to electrocatalysis
J. Mater. Chem., 2011, 21 (12), 4182-4188
30. S. Habouti, M. Mátéfi-Tempfli, C.-H. Solterbeck, Ma. Es-Souni, S. Mátéfi-Tempfli, and M. Es-Souni
On-substrate, self-standing Au-nanorod arrays showing morphology controlled properties
nanotoday, 2011, 6 (1), 12-19
31. S. Habouti, C-H. Solterbeck, and M. Es-Souni
Synthesis of silver nano-fir-twigs and application to single molecules detection
J. Mater. Chem., 2010, 20 (25), 5215-5219
32. A. Lahmar, S. Habouti, C-H. Solterbeck, M. Dietze, and M. Es-Souni
Multiferroic properties of $\text{Bi}_{0.9}\text{Gd}_{0.1}\text{Fe}_{0.9}\text{Mn}_{0.1}\text{O}_3$ thin film
J. Appl. Phys., 2010, 107, 024104
33. M. Es-Souni, Ma. Es-Souni, S. Habouti, N. Pfeiffer, A. Lahmar, M. Dietze, and C-H. Solterbeck
Brookite Formation in TiO_2 - Ag Nanocomposites and Visible-light-Induced Templated Growth of Ag Nanostructures in TiO_2
Adv. Funct. Mater., 2010, 20, 377-385
34. Ma. Es-Souni, H. Fischer-Brandies, and M. Es-Souni
Versatile Nanocomposite Coatings with Tunable Cell Adhesion and Bactericidity
Adv. Funct. Mater., 2008, 18, 3179–3188