

List of publications: Dr. Viktor Čolić

2019

- Andersen, S.Z., Čolić, V., Yang, S., Schwalbe, J.A., Nielander, A.C., McEnaney, J.M., Enemark-Rasmussen, K., Baker, J.G., Singh, A.R., Rohr, B.A., Statt, M.J., Blair, S.J., Mezzavilla, S., Kibsgaard, J., Vesborg, P.C.K., Cargnello, M., Bent, S.F., Jaramillo, T.F., Stephens, I.E.L., Nørskov, J.K., Chorkendorff, I. (2019). A rigorous electrochemical ammonia synthesis protocol with quantitative isotope measurements *Nature* 570, 504-508. <https://doi.org/10.1038/s41586-019-1260-x>
- Nielander, A.C., McEnaney, J.M., Schwalbe, J.A., Baker, J.G., Blair, S.J., Wang, L., Pelton, J.G., Andersen, S.Z., Enemark-Rasmussen, K., Čolić, V., Yang, S., Bent, S.F., Cargnello, M., Kibsgaard, J., Vesborg, P.C.K., Chorkendorff, I., Jaramillo, T.F. (2019). A Versatile Method for Ammonia Detection in a Range of Relevant Electrolytes via Direct Nuclear Magnetic Resonance Techniques *ACS Catalysis* 9(7), 5797-5802. <https://doi.org/10.1021/acscatal.9b00358>

2018

- Yang, S., Verdager-Casadevall, A., Arnarson, L., Silvioli, L., Čolić, V., Frydendal, R., Rossmeisl, J., Chorkendorf, I., Stephens, I.E.L. (2018). Toward the Decentralized Electrochemical Production of H₂O₂: A Focus on the Catalysis *ACS Catalysis* 8(5), 4064-4081. <https://doi.org/10.1021/acscatal.8b00217>
- Čolić, V., Yang, S., Révay, Z., Stephens, I.E.L., Chorkendorff, I. (2018). Carbon catalysts for electrochemical hydrogen peroxide production in acidic media *Electrochimica Acta* 272, 192-202. <https://doi.org/10.1016/j.electacta.2018.03.170>
- Garlyyev, B., Pohl, M.D., Čolić, V., Liang, Y., Butt, F.K., Holleitner, A., Bandarenka, A.S. (2018). High oxygen reduction reaction activity of Pt₅Pr electrodes in acidic media *Electrochemistry Communications* 88, 10-14. <https://doi.org/10.1016/j.elecom.2018.01.005>

2017

- Xue, S., Watzele, S., Čolić, V., Brandl, K., Garlyyev, B., Bandarenka, A.S. (2017). Reconsidering Water Electrolysis: Producing Hydrogen at Cathodes Together with Selective Oxidation of *n*-Butylamine at Anodes *ChemSusChem* 10(24), 4812-4816. <https://doi.org/10.1002/cssc.201701802>

2016

- Ganassin, A., Maljusch, A., Čolić, V., Spanier, L., Brandl, K., Schuhmann, W., Bandarenka, A. (2016). Benchmarking the Performance of Thin-Film Oxide Electrocatalysts for Gas Evolution Reactions at High Current Densities *ACS Catalysis* 6(5), 3017-3024. <https://doi.org/10.1021/acscatal.6b00455>
- Čolić, V., Pohl, M.D., Scieszka, D., Bandarenka, A.S. (2016). Influence of the electrolyte composition on the activity and selectivity of electrocatalytic centers *Catalysis Today* 262, 24-35. <https://doi.org/10.1016/j.cattod.2015.08.003>

- Čolić, V., Bandarenka, A.S. (2016). Pt Alloy Electrocatalysts for the Oxygen Reduction Reaction: from Model Surfaces to Nanostructured Systems *ACS Catalysis* 6(8), 5378-5385. <https://doi.org/10.1021/acscatal.6b00997>
- Pohl, M.D., Čolić, V., Scieszka, D., Bandarenka, A.S. (2016). Elucidation of adsorption processes at the surface of Pt(331) model electrocatalysts in acidic aqueous media *Physical Chemistry Chemical Physics* 18(16), 10792-10799. <https://doi.org/10.1039/c5cp08000b>

2015

- Calle-Vallejo, F., Tymoczko, J., Čolić, V., Vu, Q.H., Pohl, M.D., Morgenstern, K., Loffreda, D., Sautet, P., Schuhmann, W., Bandarenka, A.S. (2015). Finding optimal surface sites on heterogeneous catalysts by counting nearest neighbors *Science* 350(6257), 185-189. <https://doi.org/10.1126/science.aab3501>
- Tymoczko, J., Calle-Vallejo, F., Čolić, V., Schumann, W., Bandarenka, A.S. (2015). Evaluation of the Electrochemical Stability of Model Cu-Pt(111) Near-Surface Alloy Catalysts *Electrochimica Acta* 179, 469-474. <https://doi.org/10.1016/j.electacta.2015.02.110>
- Tymoczko, J., Čolić, V., Ganassin, A., Schumann, W., Bandarenka, A.S. (2015). Influence of the alkali metal cations on the activity of Pt(111) towards model electrocatalytic reactions in acidic sulfuric media *Catalysis Today* 244, 96-102. <https://doi.org/10.1016/j.cattod.2014.07.007>
- Tymoczko, J., Čolić, V., Bandarenka, A.S., Schumann, W. (2015). Detection of 2D phase transitions at the electrode/electrolyte interface using electrochemical impedance spectroscopy *Surface Science* 631, 81-87. <https://doi.org/10.1016/j.susc.2014.04.014>
- Čolić, V., Tymoczko, J., Maljusch, A., Ganassin, A., Schumann, W., Bandarenka, A.S. (2015). Experimental Aspects in Benchmarking of the Electrocatalytic Activity *ChemElectroChem* 2(1), 143-149. <https://doi.org/10.1002/celec.201402295>
- Ganassin, A., Čolić, V., Tymoczko, J., Bandarenka, A.S., Schumann, W. (2015). Non-covalent interactions in water electrolysis: influence on the activity of Pt(111) and iridium oxide catalysts in acidic media *Physical Chemistry Chemical Physics* 17(13), 8349-8355. <https://doi.org/10.1039/c4cp04791e>

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- Tymoczko, J., Calle-Vallejo, F., Čolić, V., Koper, M.T.M., Schuhmann, W., Bandarenka, A.S. (2014). Oxygen Reduction at a Cu-Modified Pt(111) Model Electrocatalyst in Contact with Nafion Polymer *ACS Catalysis* 2(10), 3772-3778. <https://doi.org/10.1021/cs501037y>