

Thomas Hersbach

Postdoctoral Scholar, Photon Science, SLAC

Bio

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Leiden University (2018)
- Master of Science, Leiden University (2014)
- Bachelor of Science, Leiden University (2012)

STANFORD ADVISORS

- Britt Hedman, Postdoctoral Faculty Sponsor
- Dimosthenis Sokaras, Postdoctoral Research Mentor

Publications

PUBLICATIONS

- **Efficient and Stable Acidic Water Oxidation Enabled by Low-Concentration, High-Valence Iridium Sites** *ACS ENERGY LETTERS*
Shi, X., Peng, H., Hersbach, T. P., Jiang, Y., Zeng, Y., Baek, J., Winther, K. T., Sokaras, D., Zheng, X., Bajdich, M.
2022
- **Base-Accelerated Degradation of Nanosized Platinum Electrocatalysts** *ACS CATALYSIS*
Hersbach, T. P., Garcia, A. C., Kroll, T., Sokaras, D., Koper, M. M., Garcia-Esparza, A. T.
2021; 11 (15): 9904-9915
- **Electrochemical Cleaning Stability and Oxygen Reduction Reaction Activity of 1-2 nm Dendrimer-Encapsulated Au Nanoparticles** *CHEMELECTROCHEM*
Strasser, J. W., Hersbach, T. P., Liu, J., Lapp, A. S., Frenkel, A. I., Crooks, R. M.
2021; 8 (13): 2545-2555
- **Cathodic corrosion: 21st century insights into a 19th century phenomenon** *CURRENT OPINION IN ELECTROCHEMISTRY*
Hersbach, T. P., Koper, M. M.
2021; 26
- **Nanoscale morphological evolution of monocrystalline Pt surfaces during cathodic corrosion** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Arulmozhi, N., Hersbach, T. P., Koper, M. M.
2020; 117 (51): 32267-77
- **Tailoring the Electrocatalytic Activity and Selectivity of Pt(111) through Cathodic Corrosion** *ACS CATALYSIS*
Hersbach, T. P., Ye, C., Garcia, A. C., Koper, M. M.
2020; 10 (24): 15104-13
- **Alkali Metal Cation Effects in Structuring Pt, Rh, and Au Surfaces through Cathodic Corrosion** *ACS APPLIED MATERIALS & INTERFACES*
Hersbach, T. P., McCrum, I. T., Anastasiadou, D., Wever, R., Calle-Vallejo, F., Koper, M. M.
2018; 10 (45): 39363-79
- **Hydrogen adsorption on nano-structured platinum electrodes** *FARADAY DISCUSSIONS*
Diaz-Morales, O., Hersbach, T. P., Badan, C., Garcia, A. C., Koper, M. M.

2018; 210: 301–15

- **Local structure and composition of PtRh nanoparticles produced through cathodic corrosion** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*
Hersbach, T. P., Kortlever, R., Lehtimäki, M., Krtil, P., Koper, M. M.
2017; 19 (16): 10301–8
- **Anisotropic etching of platinum electrodes at the onset of cathodic corrosion** *NATURE COMMUNICATIONS*
Hersbach, T. P., Yanson, A. I., Koper, M. M.
2016; 7: 12653
- **Anisotropic etching of rhodium and gold as the onset of nanoparticle formation by cathodic corrosion** *FARADAY DISCUSSIONS*
Hersbach, T. P., Mints, V. A., Calle-Vallejo, F., Yanson, A. I., Koper, M. M.
2016; 193: 207–22
- **Enhancement Effect of Noble Metals on Manganese Oxide for the Oxygen Evolution Reaction** *JOURNAL OF PHYSICAL CHEMISTRY LETTERS*
Seitz, L. C., Hersbach, T. J., Nordlund, D., Jaramillo, T. F.
2015; 6 (20): 4178–4183
- **Electro-Oxidation of Glycerol on Platinum Modified by Adatoms: Activity and Selectivity Effects** *TOPICS IN CATALYSIS*
Kwon, Y., Hersbach, T. P., Koper, M. M.
2014; 57 (14-16): 1272–76
- **Electrochemical and Spectroelectrochemical Characterization of an Iridium-Based Molecular Catalyst for Water Splitting: Turnover Frequencies, Stability, and Electrolyte Effects** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Diaz-Morales, O., Hersbach, T. P., Hettler, D. H., Reek, J. H., Koper, M. M.
2014; 136 (29): 10432–39