

## List of publications - Annette Trunschke

2022

1. Pierre Kube, Jinhu Dong, Toyin Omojola, Nuria Sánchez Bastardo, Holger Ruland, Robert Schlögl, and Annette Trunschke  
[Green Synthesis of Propylene Oxide Directly from Propane](#)  
submitted to *Nature Communications*; ChemRxiv. Cambridge: Cambridge Open Engage; **2022**;  
**DOI:** [10.26434/chemrxiv-2022-2clnw](https://doi.org/10.26434/chemrxiv-2022-2clnw).
2. J. Sauer, R. Schlögl, A. Trunschke, S. T. Oyama,  
[Foreword – Special Issue Haber/Grasselli](#)  
*Journal of Catalysis*, **2022**, 408, 329-329.
3. Annette Trunschke  
[Prospects and challenges for autonomous catalyst discovery viewed from an experimental perspective](#)  
*Catalysis Science & Technology*, *Catalysis Science & Technology*, **2022**, 12, 3650 – 3669; **DOI:**  
<http://doi.org/10.1039/D2CY00275B>.
4. Peter Kraus, Elisabeth H. Wolf, Charlotte Prinz, Giulia Bellini, Annette Trunschke, and Robert Schlögl  
[Towards Automation of Operando Experiments: A Case Study in Contactless Conductivity Measurements](#)  
*Digital Discovery*, **2022**, **DOI:** <http://doi.org/10.1039/D1DD00029B>.
5. Yuanqing Wang, Frank Rosowski, Robert Schlögl, Annette Trunschke  
[Oxygen Exchange on Vanadium Pentoxide](#)  
*J. Phys. Chem. C*, **2022**, 126, 3443-3456;  
**DOI:** <https://pubs.acs.org/doi/10.1021/acs.jpcc.2c00174>.
6. I. Tyrone Ghampson, Sean-Thomas B. Lundin, Vibin Vargheese, Yasukazu Kobayashi, Gregory S. Huff, Robert Schlögl, Annette Trunschke, S. Ted Oyama  
[Methane Selective Oxidation on Metal Oxide Catalysts at Low Temperatures with O<sub>2</sub> Using an NO/NO<sub>2</sub> Oxygen Atom Shuttle](#)  
*Journal of Catalysis*, **2022**, 408, 401-412; **DOI:** <https://doi.org/10.1016/j.jcat.2021.07.014>.
7. J. Sauer, R. Schlögl, A. Trunschke, S. T. Oyama  
Foreword  
*Journal of Catalysis*, **2022**, 408, 329; <https://doi.org/10.1016/j.jcat.2021.11.018>
8. Lukas Thum, Wiebke Riedel, Natasa Milojevic, Chengyue Guan, Annette Trunschke, Klaus-Peter Dinse, Thomas Risse, Reinhard Schomäcker, and Robert Schlögl  
[Transition-Metal-Doping of CaO as Catalyst for the OCM Reaction, a Reality Check](#)  
*Frontiers Chemistry*, **2022**, 10, 768426; **DOI:** <http://doi.org/10.3389/fchem.2022.768426>
9. Annette Trunschke  
[Synthesis of Solid Catalysts](#)  
<https://doi.org/10.1515/9783110608458-011> in *Chemical Energy Storage*, Walter de Gruyter GmbH, Berlin, **2022**, <https://doi.org/10.1515/9783110608458>.

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10. Gregor Koch, Michael Hävecker, Pierre Kube, Andrey Tarasov, Robert Schlögl, and Annette Trunschke  
[The Influence of the Chemical Potential on Defects and Function of Perovskites in Catalysis](#)  
*Frontiers Chemistry*, **2021**, 9:746229; <https://doi.org/10.3389/fchem.2021.746229>.

11. Thomas Berger, and Annette Trunschke  
[Optical Properties: UV/Vis Diffuse Reflectance Spectroscopy and Photoluminescence in Metal Oxide Nanoparticles: Formation, Functional Properties, and Interfaces, Volume 2, Pages 435-482](#)  
 Wiley Online Library, **2021**, <https://doi.org/10.1002/9781119436782.ch12>.
12. Lucas Foppa, Luca M. Ghiringhelli, Frank Girgsdies, Maike Hashagen, Pierre Kube, Michael Hävecker, Spencer Carey, Andrey Tarasov, Peter Kraus, Frank Rosowski, Robert Schlögl, Annette Trunschke, and Matthias Scheffler  
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*MRS Bulletin*, **2021**, 46; <https://arxiv.org/abs/2102.08269>; <https://doi.org/10.1557/s43577-021-00165-6>.
13. Xinhe Bao, Malte Behrens, Gerhard Ertl, Qiang Fu, Axel Knop-Gericke, Thomas Lunkenbein, Martin Muhler, Christoph. M. Schmidt, and Annette Trunschke  
[A Career in Catalysis: Robert Schlögl](#)  
*ACS Catalysis*, **2021**, 11, 6243-6260; <https://doi.org/10.1021/acscatal.1c01165>.
14. Kevin Ament, D. R. Wagner, T. Götsch, T. Kikuchi, J. Kröhnert, A. Trunschke, T. Lunkenbein, T. Sasaki, and J. Breu  
[Enhancing the Catalytic Activity of Palladium Nanoparticles via Sandwich-Like Confinement by Thin Titanate Nanosheets](#)  
*ACS Catalysis*, **2021**, 11, 2754-2762; DOI: <https://doi.org/10.1021/acscatal.1c00031>.
15. Kevin Ament, Nicolas Köwitsch, Dianwei Hou, Thomas Götsch, Jutta Kröhnert, Christopher J. Heard, Annette Trunschke, Thomas Lunkenbein, Marc Armbrüster, and Josef Breu  
[Nanoparticles Supported on Sub-Nanometer Oxide Films: Scaling Model Systems to Bulk Materials](#)  
*Angew. Chem. Int. Ed.*, **2021**, 60, 5890-5897; DOI: <https://doi.org/10.1002/anie.202015138>.
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21. Gregor Koch, Michael Hävecker, Detre Teschner, Spencer J. Carey, Yuanqing Wang, Pierre Kube, Walid Hetaba, Thomas Lunkenbein, Gudrun Auffermann, Olaf Timpe, Frank Rosowski, Robert Schlögl, and Annette Trunschke  
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*Angewandte Chemie Int. Ed.*, **2020**, *59*, 14921-14926;  
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*Nanoscale*, **2020**, *12*, 6759-6766; **DOI:** <https://doi.org/10.1039/C9NR09041J>.
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[Catalytic Activity, Water Formation and Sintering: Methane Activation over Co- and Fe-doped MgO Nanocrystals](#)  
*The Journal of Chemical Physics*, **2020**, *152*, 074713;  
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*Molecular Catalysis*, **2019**, 478, 110580;  
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