

I. Original Peer-Reviewed Articles

- 326) Yang Q, Surin I, Geiger J, Eliasson H, Agrachev M, Kondratenko VA, Zanina A, Krumeich F, Jeschke G, Erni R, Kondratenko EV, López N, Pérez-Ramírez J. **ACS Catal.** 13, 15977-15990. doi: 10.1021/acscatal.3c04463 (2023) *Lattice-Stabilized Chromium Atoms on Ceria for N₂O Synthesis.*
- 325) A. Ashuiev, A. Giorgia Nobile, D. Trummer, D. Klose, S. Guda, OV. Safonova, C. Copéret, A. Guda, G. Jeschke. **Angew Chem Int Ed.** doi: 10.1002/anie.202313348 (2023) *Active Sites in Cr(III)-Based Ethylene Polymerization Catalysts from Machine-Learning-Supported XAS and EPR Spectroscopy.*
- 324) V. Kalendra, J. Turčák, G. Usevičius, H. Karas, M. Hülsmann, Godt A, Jeschke G, Banys J, Morton JLL, Šimėnas M. **J Magn Reson.** 356, doi: 10.1016/j.jmr.2023.107573 (2023) *Q-band EPR cryoprobe.*
- 323) P. Müller, P. Finkelstein, N. Trapp, A. Bismuto, G. Jeschke, B. Morandi. **Inorg Chem.** 62, 16661-16668. doi: 10.1021/acs.inorgchem.3c01559 (2023) *Nickel(I)-Phenolate Complexes: The Key to Well-Defined Ni(I) Species.*
- 322) G. Dorn, C. Gmeiner, T. de Vries, E. Dedic, M. Novakovic, FF. Damberger, C. Maris, E. Finol, CP. Sarnowski, J. Kohlbrecher, TJ. Welsh, S. Bolisetty, R. Mezzenga, R. Aebersold, A. Leitner, M. Yulikov, G. Jeschke, FH. Allain. **Nat Commun.** 14, doi: 10.1038/s41467-023-42012-z (2023) *Integrative solution structure of PTBP1-IRES complex reveals strong compaction and ordering with residual conformational flexibility.*
- 321) V. Giulimondi, A. Ruiz-Ferrando, G. Giannakakis, I. Surin, M. Agrachev, G. Jeschke, F. Krumeich, N. López, AH. Clark, J. Pérez-Ramírez. **Nat Commun.** 14, doi: 10.1038/s41467-023-41344-0 (2023) *Evidence of bifunctionality of carbons and metal atoms in catalyzed acetylene hydrochlorination.*
- 320) JWA. Fischer, A. Brenig, D. Klose, JA. van Bokhoven, VL. Sushkevich, G. Jeschke. **Angew Chem Int Ed.** 62, doi: 10.1002/anie.202303574 (2023) *Methane Oxidation over Cu²⁺ / [CuOH]⁺ Pairs and Site-Specific Kinetics in Copper Mordenite Revealed by Operando Electron Paramagnetic Resonance and UV/Visible Spectroscopy.*
- 319) L. Rochlitz, JWA. Fischer, Q. Pessemesse, AH. Clark, A. Ashuiev, D. Klose, PA. Payard, G. Jeschke, C. Copéret. **JACS Au.** 3, doi: 10.1021/jacsau.3c00197 (2023) *Ti-Doping in Silica-Supported PtZn Propane Dehydrogenation Catalysts: From Improved Stability to the Nature of the Pt-Ti Interaction.*

- 318) D. Faust Akl, G. Giannakakis, A. Ruiz-Ferrando, M. Agrachev, JD. Medrano-García, G. Guillén-Gosálbez, G. Jeschke, AH. Clark, OV. Safonova, S. Mitchell, N. López, J. Pérez-Ramírez. **Adv Mater.** 35, doi: 10.1002/adma.202211464 (2023) *Reaction-Induced Formation of Stable Mononuclear Cu(I)Cl Species on Carbon for Low-Footprint Vinyl Chloride Production.*
- 317) I. Surin, Z. Tang, J. Geiger, S. Damir, H. Eliasson, M. Agrachev, F. Krumeich, S. Mitchell, VA. Kondratenko, EV. Kondratenko, G. Jeschke, R. Erni, N. López, J. Pérez-Ramírez. **Adv Mater.** 35, doi: 10.1002/adma.202211260 (2023) *Low-Valent Manganese Atoms Stabilized on Ceria for Nitrous Oxide Synthesis.*
- 316) DP. Adiyeri Saseendran, JWA Fischer, L. Müller, DF. Abbott, V. Mougel, G. Jeschke, CA. Triana, GR. Patzke. **Chem Commu (Camb).** 59, 5866-5869. doi: 10.1039/d3cc01005h (2023) *Copper(III) defect-cubane water oxidation electrocatalysts: from molecular tetramers to oxidic nanostructures.*
- 315) A. Eggeling, J. Soetbeer, L. Fábregas-Ibáñez, D. Klose, G. Jeschke. **Phys Chem Chem Phys.** 25, 11145-11157, doi: 10.1039/d3cp01299a (2023) *Quantifying methyl tunneling induced (de)coherence of nitroxides in glassy ortho-terphenyl at low temperatures.*
- 314) M. Swierczewski, F. Cousin, E. Banach, A. Rosspeintner, LM. Lawson Daku, A. Ziarati, R. Kazan, G. Jeschke, R. Azoulay, LT. Lee, T. Bürgi. **Angew Chem Int Ed.** 62, doi: 10.1002/anie.202215746 (2023) *Exceptionally Stable Dimers and Trimers of Au₂₅ Clusters Linked with a Bidentate Dithiol: Synthesis, Structure and Chirality Study.*
- 313) G. Usevičius, A Eggeling, I. Pocius, V. Kalendra, D. Klose, M. Mączka, A. Pöppel, J. Banys, G. Jeschke, M. Šimėnas. **Molecules.** 28, doi: 10.3390/molecules28030979 (2023) *Probing Methyl Group Tunneling in [(CH₃)₂NH₂][Zn(HCOO)₃] Hybrid Perovskite Using Co²⁺ EPR.*
- 312) Vanas, J. Soetbeer, F.D. Breitgoff, H. Hintz, M. Sajid, Y. Polyhach, A. Godt, G. Jeschke, M. Yulikov, D. Klose, **Magn. Reson.** 4, 1-18, doi: 10.5194/mr-4-1-2023 (2023) *Intermolecular contributions, filtration effects and signal composition of SIFTER (single-frequency technique for refocusing).*
- 311) N. Wili, A.B. Nielsen, L.A. Völker, L. Schreder, N.C. Nielsen, G. Jeschke, K.O. Tan. **Sci Adv.** 8, eabq0536, doi: 10.1126/sciadv.abq0536 (2022) *Designing broadband pulsed dynamic nuclear polarization sequences in static solids.*
- 310) G. Jeschke. **Appl Magn Reson.** 53, 635-651, doi: 10.1007/s00723-021-01375-6 (2022) *Rotational Coupling in Methyl-Tunneling Electron Spin Echo Envelope Modulation.*

- 309) L. Fábregas-Ibáñez, V. Mertens, I. Ritsch, T. von Hagens, S. Stoll, G. Jeschke. **Phys Chem Chem Phys.** 24, 22645-22660, doi: 10.1039/d2cp03048a (2022) *Dipolar pathways in multi-spin and multi-dimensional dipolar EPR spectroscopy.*
- 308) A. Born, J. Soetbeer, A.H. Morkos, F. Breitgoff, Y. Polyhach, G. Jeschke, B. Vögeli. **Nat Commun.** 13, 4546, doi: 10.1038/s41467-022-32340-x (2022) *Ligand-specific conformational change drives interdomain allostery in Pin1.*
- 307) G. Jeschke. **Biomolecules.** 12, 1369, doi: 10.3390/biom12101369 (2022) *Integration of Nanometer-Range Label-to-Label Distances and Their Distributions into Modelling Approaches.*
- 306) S. Kuzin, G. Jeschke, M. Yulikov. **Phys. Chem. Chem. Phys.** 24, 23517-23531, doi: 10.1039/D2CP03039J (2022) *Diffusion equation for the longitudinal spectral diffusion: the case of the RIDME experiment.*
- 305) I. Ritsch, E. Lehmann, L. Emmanouilidis, M. Yulikov, F. Allain, G. Jeschke. **Angew Chem Int Ed.** doi: 10.1002/anie.202204311 (2022) *Phase Separation of Heterogeneous Nuclear Ribonucleoprotein A1 upon Specific RNA-Binding Observed by Magnetic Resonance.*
- 304) L. Grunwald, M. Clémancey, D. Klose, L. Dubois, S. Gambarelli, G. Jeschke, M. Wörle, G. Blondi, V. Mougel. **Proc Natl Acad Sci USA.** doi: 10.3929/ethz-b-000562268 (2022) *A complete biomimetic iron-sulfur cubane redox series.*
- 303) D. Trummer, A.G. Nobile, P.A. Payard, A. Ashuiev, Y. Kakiuchi, D. Klose, G. Jeschke, C. Copéret. **Chem. Sci.** 13, 11091-11098, doi: 10.1039/D2SC04235E (2022) *Union carbide polymerization catalysts: from uncovering active site structures to designing molecularly-defined analogs.*
- 302) A. Vanas, J. Soetbeer, F.D. Breitgoff, H. Hintz, M. Sajid, Y. Polyhach, A. Godt, G. Jeschke, M. Yulikov, D. Klose. **Magn. Reson. Discuss.** [preprint], doi: 10.5194/mr-2022-17 (2022) *Intermolecular contributions, filtration effects and composition of the SIFTER signal.*
- 301) T. Nemeth, M. Agrachev, G. Jeschke, L. Gubler, T. Nauser. **J Phys Chem C Nanomater Interfaces.** 126, 15606-15616, doi:10.1021/acs.jpcc.2c04566 (2022) *EPR Study on the Oxidative Degradation of Phenyl Sulfonates, Constituents of Aromatic Hydrocarbon-Based Proton-Exchange Fuel Cell Membranes.*
- 300) A. Cesarini, S. Mitchell, G. Zichittella, M. Agrachev, SP. Schmid, G. Jeschke, Z. Pan, A. Bodi, P. Hemberger, J. Pérez-Ramírez. **Nat Catal.** 5, 605-614, doi: 10.1038/s41929-022-00808-0 (2022) *Elucidation of radical- and oxygenate-driven paths in zeolite-catalysed conversion of methanol and methyl chloride to hydrocarbons.*

- 299) T. Pinheiro Araújo, C. Mondelli, M. Agrachev, T. Zou, O.P. Willi, K.M. Engel, R.N. Grass, J.W. Stark, O.V. Safonova, G. Jeschke, S. Mitchell, J. Pérez-Ramírez. **Nat Commun.** 24, 5610, doi: 10.1038/s41467-022-33391-w (2022) *Flame-made ternary Pd-In₂O₃-ZrO₂ catalyst with enhanced oxygen vacancy generation for CO₂.*
- 298) L. Rochlitz, Q. Pessemesse, J.W.A. Fischer, D. Klose, A.H. Clark, M. Plodinec, G. Jeschke, P.A. Payard, and C. Copéret. **J. Am. Chem. Soc.** 144, 13384-13393, doi: 10.1021/jacs.2c05618 (2022) *A Robust and Efficient Propane Dehydrogenation Catalyst from Unexpectedly Segregated Pt₂Mn Nanoparticles.*
- 297) Y. Rao, C.T. Palumbo, A. Venkatesh, M. Keener, G. Stevanato, A. Chauvin, G. Menzildjian, S. Kuzin, M. Yulikov, G. Jeschke, A. Lesage, M. Mazzanti, and L. Emsley. **J. Phys. Chem. C** 126, 11310-11317, doi: 10.1021/acs.jpcc.2c01721 (2022) *Design Principles for the Development of Gd(III) Polarizing Agents for Magic Angle Spinning Dynamic Nuclear Polarization.*
- 296) J. Keeley, T. Choudhury, L. Galazzo, E. Bordignon, A. Feintuch, D. Goldfarb, H. Russell, M.J. Taylor, J.E. Lovett, A. Eggeling, L. Fábregas, K. Keller, M. Yulikov, G. Jeschke, I. Kuprov. **J. Magn. Reson.** 338, doi: 10.1016/j.jmr.2022.107186 (2022) *Neural networks in pulsed dipolar spectroscopy: A practical guide.*
- 295) L. Fábregas-Ibáñez, G. Jeschke, S. Stoll. **J. Magn. Reson.** 339, doi: 10.1016/j.jmr.2022.107218 (2022) *Compactness regularization in the analysis of dipolar EPR spectroscopy data.*
- 294) D. Klose, S.P.B. Vemulapalli, M. Richman, S. Rudnick, V. Aisha, M. Abayev, M. Chemerovski, M. Shviro, D. Zitoun, K. Majer, N. Wili, G. Goobes, Ch. Griesinger, G. Jeschke and S. Rahimpour. **Phys Chem Chem Phys.** 24, 6699-6715. doi: 10.1039/D1CP05415E (2022) *Cu²⁺-Induced self-assembly and amyloid formation of a cyclic D,L- α -peptide: structure and function.*
- 293) C. Jash, A. Feintuch, S. Nudelman, N. Manukovsky, E.H. Abdelkader, S. Bhattacharya, G. Jeschke, G. Otting, D. Goldfarb. **Structure.** 22, 00086-00087, doi: 10.1016/j.str.2022.03.005 (2022) *DEER experiments reveal fundamental differences between calmodulin complexes with IQ and MARCKS peptides in solution.*
- 292) B. Giulimondi, S.K. Kaiser, M. Agrachev, F. Krumeich, A.H. Clark, S. Mitchell, G. Jeschke, J. Pérez-Ramírez. **J Mater Chem A Mater.** 22, 5953-5961, doi: 10.1039/d1ta09238c (2022) *Redispersion strategy for high-loading carbon-supported metal catalysts with controlled nuclearity.*
- 291) L. Fábregas Ibáñez, M.H. Tessmer, G. Jeschke and S. Stoll. **Phys Chem Chem Phys.** 24, 2504-2520. doi: 10.1039/D1CP03305K (2022) *Dipolar pathways in dipolar EPR spectroscopy.*

- 290) G. Jeschke, L. Esteban-Hofer. **Methods Enzymol.** 666, 145-169. doi: 10.1016/bs.mie.2022.02.010 (2022) *Integrative ensemble modeling of proteins and their complexes with distance distribution restraints.*
- 289) A. Born, J. Soetbeer, F. Breitgoff, M.A. Henen, N. Sgourakis, Y. Polyhach, P.J. Nichols, D. Strotz, G. Jeschke, B. Vögeli. **J. Am. Chem. Soc.** doi: 10.1021/jacs.1c06289 (2021) *Reconstruction of Coupled Intra- and Interdomain Protein Motion from Nuclear and Electron Magnetic Resonance.*
- 288) J. Soetbeer, L. Fábregas Ibáñez, Z. Berkson, Y. Polyhach, G. Jeschke. **Phys Chem Chem Phys.** doi: 10.1039/D1CP03103A (2021) *Regularized dynamical decoupling noise spectroscopy – a decoherence descriptor for radicals in glassy matrices.*
- 287) D. Klose, A. Holla, Ch. Gmeiner, D. Nettels, I. Ritsch, N. Bross, M. Yulikov, F.H.-T. Allain, B. Schuler, G. Jeschke. **Biophys. J.** doi: 10.1016/j.bpj.2021.09.021 (2021) *Resolving distance variations by single-molecule FRET and EPR spectroscopy using rotamer libraries.*
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- 285) J. Bergsch, J.C. Devillier, G. Jeschke, G. Lipps. **Front Microbiol.** doi: 10.3389/fmicb.2021.652928 (2021) *Stringent Primer Termination by an Archaeo-Eukaryotic DNA Primase.*
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- 283) R. Vazquez Nunez, Y. Polyhach, Y.M. Soh, G. Jeschke, S. Gruber. **Cell Rep.** doi: 10.1016/j.celrep.2021.109051 (2021) *Gradual opening of Smc arms in prokaryotic condensin.*
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- 281) I. Ritsch, L. Esteban-Hofer, E. Lehmann, L. Emmanouilidis, M. Yulikov, F.H. Allain, G. Jeschke. **Front Mol Biosci.** doi: 10.3389/fmolb.2021.636599 (2021) *Characterization of Weak Protein Domain Structure by Spin-Label Distance Distributions.*
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- 278) Gunnar Jeschke. **Protein Science** 30, 125-135, doi: 10.1002/pro.3965 (2021) *MMM: Integrative ensemble modeling and ensemble analysis.*
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- 273) K. Keller, I. Ritsch, H. Hintz, M. Hülsmann, M. Qi, F.D. Breitgoff, D. Klose, Y. Polyhach, M. Yulikov, A. Godt, G. Jeschke, **Phys. Chem. Chem. Phys.** 22, 21707-21730, doi: 10.1039/d0cp03105d (2020) *Accessing distributions of exchange and dipolar couplings in stiff molecular rulers with Cu(II) centres.*
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