

List of publications - Dr. V. Zamudio-Bayer

57. L. Pille, C. A. Ortiz-Mahecha, B. Oostenrijk, J. Leroux, M. Girod, K. Hirsch, L. MacAleese, R. Meißner, D. Scuderi, I. Unger, **V. Zamudio-Bayer**; S. Bari, and L. Schwob, *Probing the Influence of Sulfur–Aromatic Interactions on the Electronic Structure of Gas-Phase Peptides*
Chem. Eur. J. e03483 (2026).
56. M. Guo, T. Dederichs, L. Enzmann, A. Banerjee, **V. Zamudio-Bayer**, M. Lundberg, P. Wernet, and R. M. Jay, *X-ray absorption spectroscopy of a coordinatively unsaturated 3d transition metal complex*
J. Chem. Phys. 163, 171103 (2025).
55. O. S. Ablyasova, M. Ugandi, E. B. Boydas, M. da Silva Santos, M. Flach, **V. Zamudio-Bayer**, M. Roemelt, J. T. Lau, and K. Hirsch, *High-Spin Manganese(V) in an Active Center Analogue of the Oxygen-Evolving Complex*
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54. L. M. Cornetta, L. Kjellsson, R. C. Couto, H. Ågren, V. Carravetta, S. L. Sorensen, M. Kubin, C. Bülow, **V. Zamudio-Bayer**, B. von Issendorff, J. T. Lau, J. Söderström, M. Agåker, J. -E. Rubensson, and R. Lindblad, *X-ray absorption spectrum of O_2^+*
Phys. Rev. A 111, 022808 (2025).
53. S. Jin, M. Flach, A. Ebenbichler, E. M. Cunningham, **V. Zamudio-Bayer**, K. Hirsch, C. van der Linde, N. Przybilla, M. Ončák, J. T. Lau, and M. K. Beyer, *X-ray absorption spectroscopy of FeH^+ to aid its identification in astrochemical environments*
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52. M. da Silva Santos, R. Medel, S. Kruse, M. Flach, O. S. Ablyasova, M. Timm, B. von Issendorff, K. Hirsch, **V. Zamudio-Bayer**, S. Riedel, and J. T. Lau, *Direct Spectroscopic Confirmation of the Oxygen-centered Diradical Character of the Tetraoxidorhenium(VII) Cation $[ReO_4]^+$*
Chem. Methods 4, e202400023 (2024).

51. M. Flach, K. Hirsch, T. Gitzinger, M. Timm, M. da Silva Santos, O. S. Ablyasova, M. Kubin, B. von Issendorff, J. T. Lau, and **V. Zamudio-Bayer**, *Abrupt Change from Ionic to Covalent Bonding in Nickel Halides accompanied by Ligand Field Inversion* Inorg. Chem. 63, 11812 (2024).
50. J. Haitjema, S. Castellanos, O. Lugier, I. Bepalov, R. Lindblad, M. Timm, C. Bülow, **V. Zamudio-Bayer**, J. T. Lau, B. von Issendorff, R. Hoekstra, K. Witte, B. Watts, T. Schlathölter, and A.M. Brouwer, *Soft X-Ray Absorption and Fragmentation of Tin-oxo Cage Photore-sists* Phys. Chem. Chem. Phys. 26, 5986 (2024).
49. O. S. Ablyasova, **V. Zamudio-Bayer**, M. Flach, M. da Silva Santos, J. T. Lau, and K. Hirsch, *Direct Spectroscopic Evidence for the High-Spin State of Dioxidomanganese(V)* Phys. Chem. Chem. Phys. 26, 5830 (2024).
48. P.H.W. Svensson, L. Schwob, O. Grånäs, I. Unger, O. Björneholm, N. Timneanu, R. Lindblad, A.-L. Vieli, **V. Zamudio-Bayer**, M. Timm, K. Hirsch, C. Caleman, and M. Berholts, *Heavy Element Incorporation in Nitroimidazole Radiosensitizers: Molecular-Level Insights into Fragmentation Dynamics* Phys. Chem. Chem. Phys. 26, 770 (2024).
47. Y. Huo, S. K. Espinoza Cangahuala, **V. Zamudio-Bayer**, M. Goulart, M. Kubin, M. Timm, J. T. Lau, B. von Issendorff, R. Hoekstra, S. Faraji, and T. Schlathölter, *A comparative laboratory study of soft X-ray-induced ionization and fragmentation of five small PAH cations* Eur. Phys. J. D 77, 181 (2023).
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45. O. S. Ablyasova, M. Guo, **V. Zamudio-Bayer**, M. Kubin, T. Gitzinger, M. da Silva Santos, M. Flach, M. Timm, M. Lundberg, J. T. Lau, and K. Hirsch, *Electronic Structure of the Complete Series of Gas-Phase Manganese Acetylacetonates by X-ray Absorption Spectroscopy* J. Phys. Chem. A 127, 7121 (2023).

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42. Y. Huo, S. K. Espinoza Cangahuala, **V. Zamudio-Bayer**, M. Goulart, M. Kubin, M. Timm, J. T. Lau, B. von Issendorff, R. Hoekstra, S. Faraji, and T. Schlathölter, *An X-ray spectroscopy study of structural stability of superhydrogenated pyrene derivatives* Mon. Not. R. Astron. Soc. 523, 865 (2023).
41. M. Liu, D. O'Reilly, L. Schwob, X. Wang, **V. Zamudio-Bayer**, J. T. Lau, S. Bari, T. Schlathölter, and J.-C. Pouilly, *Direct observation of charge, energy and Hydrogen transfer between the backbone and nucleobases in isolated DNA oligonucleotides* Chem. Eur. J. e202211555 (2023).
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36. M. da Silva Santos, T. Stüker, M. Flach, O. S. Ablyasova, M. Timm, B. von Issendorff, K. Hirsch, **V. Zamudio-Bayer**, S. Riedel, and J. T. Lau, *The Highest Oxidation State of Rhodium: Rhodium(VII) in $[\text{RhO}_3]^+$* Angew. Chem. Int. Ed. 61, e202207688 (2022).
35. X. Wang, S. Rathnachalam, **V. Zamudio-Bayer**, K. Bijlsma, W. Li, R. Hoekstra, M. Kubin, M. Timm, B. von Issendorff, J. T. Lau, S. Faraji, and T. Schlathölter, *Intramolecular hydrogen transfer in DNA induced by site-selective resonant core excitation* Phys. Chem. Chem. Phys. 24, 7815 (2022).
34. G. Gopakumar, P. H. W. Svensson, B. Brena, L. Schwob, I. Unger, C.-M. Saak, M. Timm, C. Bülow, M. Kubin, **V. Zamudio-Bayer**, J. T. Lau, B. von Issendorff, A. R. Abid, A. Lindblad, E. Danielsson, E. Koerfer, C. Coleman, O. Björneholm, and R. Lindblad, *X-ray Induced Fragmentation of Protonated Cystine* J. Phys. Chem. A 126, 1496 (2022).
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32. M. Tombers, J. Meyer, J. Meyer, A. Ławicki, **V. Zamudio-Bayer**, K. Hirsch, J. T. Lau, B. von Issendorff, A. Terasaki, T. Schlathölter, R. Hoekstra, S. Schmidt, A. K. Powell, E. Kessler, M. H. Prosenc, C. van Wüllen, and G. Niedner-Schatteburg, *Mn_{12} -acetate complexes studied as single molecules* Chem. Eur. J. 28, e202102592 (2022).

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23. **V. Zamudio-Bayer**, K. Hirsch, A. Langenberg, A. Ławicki, A. Terasaki, B. von Issendorff, and J. T. Lau, *Large orbital magnetic moments in small, free cobalt cluster ions Co_n^+ with $n \leq 9$* J. Phys.: Condens. Matter 30, 464002 (2018).
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