

Françoise Remacle
Publication list- May 2026

299 publications in international peer reviewed journals, h Index : 52, > 10 800 citations(Google scholar), h Index 45, > 8200 citations (Scopus).

- 299 G. Pandey, M. Cardosa Gutierrez, R. D. Levine, F. Remacle, *Ultrafast Science*, 2026, accepted.
- 298 F. Remacle, R. D. Levine: Chapter 3 - Introduction to Beyond the Born-Oppenheimer Approximation: Ultrafast Time-Dependent Electronic and Nuclear Dynamics. In: Hochlaf, M., Barone, V. (eds.) *Handbook of Electronic Structure Theory*. pp. 23-43. Elsevier, (2026)
- 297 J. R. Hamilton, F. Remacle and R. D. Levine, *Surprisal Analysis-Based Compaction of Entangled Molecular States of Maximal Entropy*, *Entropy* 28 (2), 192-117 (2026).
- 296 K. Schnorr, S. Augustin, U. Saalman, G. Schmid, A. Rouzée, R. Obaid, A. AlHaddad, N. Berrah, C. I. Blaga, C. Bostedt, M. Cardosa-Gutierrez, G. Carini, R. Coffee, L. F. DiMauro, P. Hart, Y. Ito, K. Kubicek, Y. Kumagai, J. Küpper, Y. H. Lai, H. Lindenblatt, R. A. Livingstone, S. Meister, R. Moshhammer, K. Motomura, T. Möller, K. Nakahara, T. Osipov, G. Pandey, D. Ray, F. Remacle, D. Rolles, J. M. Rost, I. Schlichting, R. Schmidt, S. Techert, F. Trost, K. Ueda, J. Ullrich, M. J. J. Vrakking, J. Zimmermann, C. P. Schulz and T. Pfeifer, *Visualizing the strong field-induced molecular breakup of C60 via x-ray diffraction* *Science Advances* 11 (47), eadz1900 (2025).
- 295 M. Cardosa-Gutierrez, G. Pandey, R. D. Levine and F. Remacle, *Entanglement of Molecular Orientation and Vibronic Degrees of Freedom by Ultrafast Photoexcitation in an Ensemble of Initially Randomly Oriented Molecules* *J. Phys. Chem. Lett.*, 7642-7648 (2025).
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- 292 J. R. Hamilton, F. Remacle, R. D. Levine, *Compacting the Time Evolution of the Forced Morse Oscillator Using Dynamical Symmetries Derived by an Algebraic Wei-Norman Approach*. *J. Chem. Theory Comput.* **21**, 4347-4356 (2025).
- 291 M. Lucchini, M. Cardosa-Gutierrez, M. Murari, F. Frassetto, L. Poletto, M. Nisoli and F. Remacle, *Isotope Effect on the Few-Femtosecond Relaxation Dynamics of the Ethylene Cation*, *The Journal of Physical Chemistry A* **129**, 3063-3070 (2025).
- 290 S. Ghose, A.-S. Duwez, C.-A. Fustin and F. Remacle, *Response of a Tethered Zn-Bis-Terpyridine Complex to an External Mechanical Force: A Computational Study of the Roles of the Tether and Solvent*, *The Journal of Physical Chemistry A* **129**, 3423-3424 (2025).
- 289 J. R. Hamilton, R. D. Levine and F. Remacle, *Constructing Dynamical Symmetries for Quantum Computing: Applications to Coherent Dynamics in Coupled Quantum Dots* *Nanomaterials* **14** (24), 2056 (2024).
- 288 V.-D. Nguyen, L. Wu, F. Remacle and L. Noels, *A quantum annealing-sequential quadratic programming assisted finite element simulation for non-linear and history-dependent mechanical problems* *European Journal of Mechanics - A/Solids* **105**, 105254 (2024).

- 287 N. Gelfand, K. Komarova, F. Remacle and R. D. Levine, *Nonadiabatic quantum dynamics explores non-monotonic photodissociation branching of N₂ into the N(4S) + N(2D) and N(4S) + N(2P) product channels* Phys. Chem. Chem. Phys. **26**, 3274-3284 (2024).
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- 285 M. Cardosa-Gutierrez, R. D. Levine and F. Remacle, *Electronic Coherences Excited by an Ultra Short Pulse Are Robust with Respect to Averaging over Randomly Oriented Molecules as Shown by Singular Value Decomposition* J. Phys. Chem. A **128**, 2937-2947 (2024).
- 284 M. Blavier, N. Gelfand, R.D. Levine, and F. Remacle. *Controlling the Time Evolution of Electron-Nuclei Entanglement for Steering Vibronic Coherences Dynamics Induced by Short 1–2 fs Optical Pulses*. in Proceedings of the 8th International Conference on Attosecond Science and Technology. P83-100, 2024. Cham: Springer International Publishing.
- 283 J.R. Hamilton, E. Amarotti, C.N. Dibenedetto, M. Striccoli, R.D. Levine, E. Collini, and F. Remacle *Time-Frequency Signatures of Electronic Coherence of Colloidal CdSe Quantum Dot Dimer Assemblies Probed at Room Temperature by Two-Dimensional Electronic Spectroscopy*. Nanomaterials, **13**, 2096 (2023).
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- 277 N. Gelfand, K. Komarova, F. Remacle and R. D. Levine, *Nonadiabatic dynamics in a forest of coupled states: Electronic state branching in the VUV photodissociation of N₂* J. Chem. Phys **158** (16), 164302 (2023).
- 276 N. Gelfand, F. Remacle and R. D. Levine, *Ultrafast charge migration in the laser induced dynamics of LiH validated by a computation-free isotope effect* Chem. Phys. Lett. **813**, 140318 (2023).
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- 270 G. Basnayake, P. Hoerner, B. Mignolet, M. K. Lee, Y. F. Lin, A. H. Winney, D. A. Debrah, L. Popaj, X. Shi, S. K. Lee, H. B. Schlegel, F. Remacle and W. Li, *Ellipticity controlled dissociative double ionization of ethane by strong fields*, Physical Chemistry Chemical Physics **23** (41), 23537-23543 (2021).
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