

Françoise Remacle  
Publication list- January 2024

283 publications in international peer reviewed journals, h Index : 49 (Google scholar), 9340 citations.

- 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).
- 282 M. Cardoso-Guterriez, G. D. Bo, A. S. Duwez and F. Remacle, *Steering the Mechanism of the Furan-Maleimide Retro-Diels-Alder Reaction to a Sequential Pathway with an External Mechanical Force* *Chem. Sci.*, **14** 1263-1271 (2023).
- 281 N. Gelfand, K. Komarova, F. Remacle, and R.D. Levine, *Photodissociation via weak intersystem crossing: Incoherent versus coherent excited-state nonadiabatic dynamics in N<sub>2</sub>*. *Physical Review A*, **108**(5), 053116 (2023).
- 280 F. Remacle and R. D. Levine, *A quantum information processing machine for computing by observables* *Proc. Natl. Acad. Sci. USA* **120** (11), e2220069120 (2023).
- 279 N. Gelfand, F. Remacle and R. D. Levine, *Recombination of N Atoms in a Manifold of Electronic States Simulated by Time-Reversed Nonadiabatic Photodissociation Dynamics of N<sub>2</sub>* *J. Phys. Chem. Lett.*, **14**, 4625-4630 (2023).
- 278 N. Gelfand, K. Komarova, F. Remacle and R. D. Levine, *On the Energy-specific Photodissociation Pathways of <sup>14</sup>N<sub>2</sub> and <sup>14</sup>N<sup>15</sup>N Isotopomers to N Atoms of Different Reactivity: A Quantum Dynamical Perspective* *The Astrophysical Journal* **948** (1), 58 (2023).
- 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 N<sub>2</sub>* *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).
- 275 M. Lucchini, B. Mignolet, M. Murari, C. E. M. Gonçalves, G. D. Lucarelli, F. Frassetto, L. Poletto, F. Remacle and M. Nisoli, *Few-Femtosecond C<sub>2</sub>H<sub>4</sub><sup>+</sup> Internal Relaxation Dynamics Accessed by Selective Excitation*, *The Journal of Physical Chemistry Letters*, 11169-11175 (2022).
- 274 J. R. Hamilton, E. Amarotti, C. N. Dibenedetto, M. Striccoli, R. D. Levine, E. Collini and F. Remacle, *Harvesting a Wide Spectral Range of Electronic Coherences with Disordered Quasi-Homo Dimeric Assemblies at Room Temperature*, *Advanced Quantum Technologies*, 2200060 (2022).
- 273 M. Blavier, R. D. Levine and F. Remacle, *Time evolution of entanglement of electrons and nuclei and partial traces in ultrafast photochemistry*, *Phys. Chem. Chem. Phys.* **24** (29), 17516-17525 (2022).
- 272 M. Blavier, N. Gelfand, R. D. Levine and F. Remacle, *Entanglement of electrons and nuclei: A most compact representation of the molecular wave function*, *Chem. Phys. Lett.* **804**, 139885 (2022).
- 271 M. Blavier, K. Komarova, C.E.M Gonçalves, R. D. Levine, F. Remacle, *Electronic Coherences Steer the Strong Isotope Effect in the Ultrafast Jahn–Teller Structural Rearrangement of Methane Cation Upon Tunnel Ionization*, *The Journal of Physical Chemistry A*, **125**, 9495-9507 (2021).
- 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*

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- 260 K. Komarova, F. Remacle, R.D. Levine, *Surprisal of a quantum state: Dynamics, compact representation, and coherence effects*, *The Journal of Chemical Physics* **153** (2020) 214105.
- 259 K. Komarova, H. Gattuso, R.D. Levine, F. Remacle, *Parallel Quantum Computation of Vibrational Dynamics*, *Frontiers in Physics* **8** (2020) 486.
- 258 K. Komarova, H. Gattuso, R.D. Levine, F. Remacle, *Quantum Device Emulates the Dynamics of Two Coupled Oscillators*, *The Journal of Physical Chemistry Letters* **11** (2020) 6990-6995.
- 257 H. Gattuso, R.D. Levine, F. Remacle, *Massively parallel classical logic via coherent dynamics of an ensemble of quantum systems with dispersion in size*, *Proceedings of the National Academy of Sciences* **117** (2020) 21022.
- 256 E. Collini, H. Gattuso, Y. Kolodny, L. Bolzonello, A. Volpato, H.T. Fridman, S. Yochelis, M. Mor, J. Dehnel, E. Lifshitz, Y. Paltiel, R.D. Levine, F. Remacle, *Room-Temperature Inter-Dot Coherent Dynamics in Multilayer Quantum Dot Materials*, *The Journal of Physical Chemistry C* **124** (2020) 16222-16231.
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