# Remy Mevel

List of Publications by Year
in descending order



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|---|---|---|---|
| 64 papers | 1,258 citations | 361413 20 h-index | 414414 32 g-index |
| 65 all docs | 65 docs citations | 65 times ranked | 512 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Ray-tracking methods for characterizing the dynamics of curved detonation. Physics of Fluids, 2022, 34, . | 4.0 | 3 |
| 2 | Fourier and wavelet transform analysis of wavelength modulation spectroscopy signal. Applied Physics B: Lasers and Optics, 2022, 128, . | 2.2 | 2 |
| 3 | Combustion of silane-nitrous oxide-argon mixtures: Analysis of laminar flame propagation and condensed products. Proceedings of the Combustion Institute, 2021, 38, 2235-2245. | 3.9 | 7 |
| 4 | Current status of the high-temperature kinetic models of silane: Part II. Oxidation. Combustion and Flame, 2021, 227, 538-549. | 5.2 | 5 |
| 5 | Current status of the high-temperature kinetic models of silane: Part I. Pyrolysis. Combustion and Flame, 2021, 227, 526-537. | 5.2 | 10 |
| 6 | A chemically consistent rate constant for the reaction of nitrogen dioxide with the oxygen atom. Physical Chemistry Chemical Physics, 2021, 23, 585-596. | 2.8 | 3 |
| 7 | Effect of the reactor model on steady detonation modeling. Shock Waves, 2021, 31, 323-335. | 1.9 | 11 |
| 8 | On the self-similarity of diffracting gaseous detonations and the critical channel width problem. Physics of Fluids, 2021, 33, . | 4.0 | 14 |
| 9 | Unsteady propagation of detonation with multi-stage heat release. Fuel, 2021, 296, 120666. | 6.4 | 9 |
| 10 | Effect of the excitation line on hydroxyl radical imaging by laser induced fluorescence in hydrogen detonations. Combustion and Flame, 2021, 229, 111399. | 5.2 | 12 |
| 11 | Tailored mixture properties for accurate laminar flame speed measurement from spherically expanding flames: Application to H<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>/O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>/N<mml:math xmlns:mml="http://www.w3.org/1998/Ma | 5.2 | 10 |
| 12 | Direct detonation initiation: A comparison between the critical curvature and critical decay rate models. Physics of Fluids, 2021, 33, . | 4.0 | 5 |
| 13 | Shock wave refraction patterns at a slowâ€“fast gasâ€“gas interface at superknock relevant conditions. Physics of Fluids, 2021, 33, 116101. | 4.0 | 1 |
| 14 | Modeling of spontaneous Raman scattering for detonation wave imaging. Physics of Fluids, 2021, 33, 126115. | 4.0 | 1 |
| 15 | Spherically expanding flame in silaneâ€“hydrogenâ€“nitrous oxideâ€“argon mixtures. Combustion and Flame, 2020, 221, 150-159. | 5.2 | 13 |
| 16 | Effect of incident laser sheet orientation on the OH-PLIF imaging of detonations. Shock Waves, 2020, 30, 689-702. | 1.9 | 12 |
| 17 | Effect of hydroxyl radical precursor addition on LTC-affected detonation in DMEâ€“$$hbox {O}_{{2}}$$â€“$$hbox {CO}_{{2}}$$ mixtures. Shock Waves, 2020, 30, 789-798. | 1.9 | 7 |
| 18 | Effect of 2-step energy release on direct detonation initiation by a point energy source in a rich H2â€“NO2/N2O4 mixture. Combustion and Flame, 2020, 222, 317-325. | 5.2 | 10 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 19 | Effect of volumetric expansion on shock-induced ignition of H2â€“NO2/N2O4 mixtures. Combustion and Flame, 2020, 215, 425-436. | 5.2 | 9 |
| 20 | Correction of reaction models using collision limit violation analyses: Application to a silane reaction model. Combustion and Flame, 2020, 217, 346-359. | 5.2 | 13 |
| 21 | Effect of oxygen atom precursors addition on LTC-affected detonation in $${hbox {DME}}{-}{hbox {O}}_{2}{-}{hbox {CO}}_{2}$$ mixtures. Shock Waves, 2020, 30, 799-807. | 1.9 | 12 |
| 22 | Optical regime diagram of the shock tube/pulsed laser-induced fluorescence imaging technique. Chemical Physics Letters, 2019, 730, 283-288. | 2.6 | 5 |
| 23 | Numerical study of the transition between slow reaction and ignition in a cylindrical vessel. Combustion and Flame, 2019, 204, 116-136. | 5.2 | 5 |
| 24 | Ignition characteristics of dual-fuel methane-n-hexane-oxygen-diluent mixtures in a rapid compression machine and a shock tube. Fuel, 2019, 249, 379-391. | 6.4 | 18 |
| 25 | Experimental and numerical study of the ignition of hydrogen-air mixtures by a localized stationary hot surface. International Journal of Heat and Fluid Flow, 2019, 76, 154-169. | 2.4 | 17 |
| 26 | Oxidation of n-hexane in the vicinity of the auto-ignition temperature. Fuel, 2019, 236, 373-381. | 6.4 | 7 |
| 27 | Ignition of hydrogen-air mixtures under volumetric expansion. Proceedings of the Combustion Institute, 2019, 37, 3503-3511. | 3.9 | 8 |
| 28 | An updated reaction model for the high-temperature pyrolysis and oxidation of acetaldehyde. Fuel, 2018, 217, 226-239. | 6.4 | 19 |
| 29 | Role of low-temperature chemistry in detonation of n-heptane/oxygen/diluent mixtures. Combustion and Flame, 2018, 193, 463-470. | 5.2 | 23 |
| 30 | Experimental and numerical study on moving hot particle ignition. Combustion and Flame, 2018, 192, 495-506. | 5.2 | 27 |
| 31 | Shock wave and flame front induced detonation in a rapid compression machine. Shock Waves, 2018, 28, 1109-1116. | 1.9 | 9 |
| 32 | Structure of detonation propagating in lean and rich dimethyl etherâ€“oxygen mixtures. Shock Waves, 2018, 28, 955-966. | 1.9 | 22 |
| 33 | Dynamics of ignition of stoichiometric hydrogen-air mixtures by moving heated particles. International Journal of Hydrogen Energy, 2017, 42, 7380-7392. | 7.1 | 19 |
| 34 | Effects of differential diffusion on ignition of stoichiometric hydrogen-air by moving hot spheres. Proceedings of the Combustion Institute, 2017, 36, 1155-1163. | 3.9 | 18 |
| 35 | Hot surface ignition of stoichiometric hydrogen-air mixtures. International Journal of Hydrogen Energy, 2017, 42, 7393-7403. | 7.1 | 31 |
| 36 | Models for shock-induced ignition evaluated by detailed chemical kinetics for hydrogen/air in the context of deflagration-to-detonation transition. Journal of Loss Prevention in the Process Industries, 2017, 49, 731-738. | 3.3 | 5 |

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| 37 | Ignition of fuelâ€“air mixtures from a hot circular cylinder. Combustion and Flame, 2017, 185, 265-277. | 5.2 | 17 |
| 38 | Detonation wave diffraction in H2â€“O2â€“Ar mixtures. Proceedings of the Combustion Institute, 2017, 36, 2781-2789. | 3.9 | 40 |
| 39 | Chemical Kinetics of n-Hexane-Air Atmospheres in the Boundary Layer of a Moving Hot Sphere. Combustion Science and Technology, 2016, 188, 2267-2283. | 2.3 | 7 |
| 40 | Hot Surface Ignition of <i>n</i>-Hexane Mixtures Using Simplified Kinetics. Combustion Science and Technology, 2016, 188, 2060-2076. | 2.3 | 14 |
| 41 | Fundamental combustion properties of oxygen enriched hydrogen/air mixtures relevant to safety analysis: Experimental and simulation study. International Journal of Hydrogen Energy, 2016, 41, 6905-6916. | 7.1 | 19 |
| 42 | High-speed OH-PLIF imaging of deflagration-to-detonation transition in H2â€“air mixtures. Experiments in Fluids, 2016, 57, 1. | 2.4 | 8 |
| 43 | Detonation in hydrogenâ€“nitrous oxideâ€“diluent mixtures: An experimental and numerical study. Combustion and Flame, 2015, 162, 1638-1649. | 5.2 | 40 |
| 44 | Modeling of Rayleigh scattering imaging of detonation waves: Quantum computation of Rayleigh cross-sections and real diagnostic effects. Combustion and Flame, 2015, 162, 2191-2199. | 5.2 | 6 |
| 45 | Ignition delay-time behind reflected shock waves of small hydrocarbonsâ€“nitrous oxide(â€“oxygen) mixtures. Shock Waves, 2015, 25, 217-229. | 1.9 | 42 |
| 46 | Ignition and chemical kinetics of acroleinâ€“oxygenâ€“argon mixtures behind reflected shock waves. Fuel, 2014, 135, 498-508. | 6.4 | 24 |
| 47 | Application of a laser induced fluorescence model to the numerical simulation of detonation waves in hydrogenâ€“oxygenâ€“diluent mixtures. International Journal of Hydrogen Energy, 2014, 39, 6044-6060. | 7.1 | 34 |
| 48 | Low temperature oxidation of n-hexane in a flow reactor. Fuel, 2014, 126, 282-293. | 6.4 | 25 |
| 49 | Experimental study of minimum ignition energy of lean H2-N2O mixtures. Proceedings of the Combustion Institute, 2013, 34, 895-902. | 3.9 | 29 |
| 50 | Measurement of the absorption cross sections of SiCl4, SiCl3, SiCl2 and Cl at H Lyman- wavelength. Chemical Physics Letters, 2013, 561-562, 31-35. | 2.6 | 3 |
| 51 | Dynamics of excited hydroxyl radicals in hydrogen-based mixtures behind reflected shock waves. Proceedings of the Combustion Institute, 2013, 34, 677-684. | 3.9 | 23 |
| 52 | The effect of heating rates on low temperature hexane air combustion. Fuel, 2012, 96, 392-403. | 6.4 | 25 |
| 53 | Assessment of H2-CH4-air mixtures oxidation kinetic models used in combustion. International Journal of Hydrogen Energy, 2012, 37, 698-714. | 7.1 | 13 |
| 54 | Absorption cross section at 3.39Î¼m of alkanes, aromatics and substituted hydrocarbons. Chemical Physics Letters, 2012, 531, 22-27. | 2.6 | 31 |

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|---|---|---|---|
| 55 | Flame burning speeds and combustion characteristics of undiluted and nitrogen-diluted hydrogenâ€“nitrous oxide mixtures. International Journal of Hydrogen Energy, 2011, 36, 10107-10116. | 7.1 | 49 |
| 56 | Numerical study of the detonation structure in rich H2âˆ’NO2/N2O4 and very lean H2âˆ’N2O mixtures. Shock Waves, 2011, 21, 85-99. | 1.9 | 28 |
| 57 | A chemical kinetic study of the oxidation of silane by nitrous oxide, nitric oxide and oxygen. Proceedings of the Combustion Institute, 2011, 33, 485-492. | 3.9 | 38 |
| 58 | Critical energy for direct initiation of spherical detonations in H2/N2O/Ar mixtures. International Journal of Hydrogen Energy, 2011, 36, 5707-5716. | 7.1 | 70 |
| 59 | Elementary kinetics for gas phase combustion of SiCl4 based mixtures. Proceedings of the Combustion Institute, 2011, 33, 477-484. | 3.9 | 7 |
| 60 | Oxygen atom kinetics in silaneâ€“hydrogenâ€“nitrous oxide mixtures behind reflected shock waves. Chemical Physics Letters, 2010, 500, 223-228. | 2.6 | 17 |
| 61 | A study of N<sub>2</sub>O decomposition rate constant at high temperature: Application to the reduction of nitrous oxide by hydrogen. International Journal of Chemical Kinetics, 2009, 41, 357-375. | 1.6 | 48 |
| 62 | Spherical expanding flames in H2â€“N2Oâ€“Ar mixtures: flame speed measurements and kinetic modeling. International Journal of Hydrogen Energy, 2009, 34, 9007-9018. | 7.1 | 52 |
| 63 | Hydrogenâ€“nitrous oxide delay times: Shock tube experimental study and kinetic modelling. Proceedings of the Combustion Institute, 2009, 32, 359-366. | 3.9 | 112 |
| 64 | Induction Delay Times and Detonation Cell Size Prediction of Hydrogen-Nitrous Oxide-Diluent Mixtures. Combustion Science and Technology, 2008, 180, 1858-1875. | 2.3 | 35 |