# Jacob W Martin

List of Publications by Year
in descending order



| 34 | 898 | 430754 18 | 477173 29 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 34 | 34 | 34 | 835 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Soot inception: Carbonaceous nanoparticle formation in flames. Progress in Energy and Combustion Science, 2022, 88, 100956. | 15.8 | 117 |
| 2 | Internal structure of soot particles in a diffusion flame. Carbon, 2019, 141, 635-642. | 5.4 | 94 |
| 3 | The enhancement of chain rigidity and gas transport performance of polymers of intrinsic microporosity via intramolecular locking of the spiro-carbon. Chemical Communications, 2016, 52, 6553-6556. | 2.2 | 53 |
| 4 | The Polarization of Polycyclic Aromatic Hydrocarbons Curved by Pentagon Incorporation: The Role of the Flexoelectric Dipole. Journal of Physical Chemistry C, 2017, 121, 27154-27163. | 1.5 | 48 |
| 5 | Reactivity of Polycyclic Aromatic Hydrocarbon Soot Precursors: Implications of Localized Ï€-Radicals on Rim-Based Pentagonal Rings. Journal of Physical Chemistry C, 2019, 123, 26673-26682. | 1.5 | 47 |
| 6 | Optical band gap of cross-linked, curved, and radical polyaromatic hydrocarbons. Physical Chemistry Chemical Physics, 2019, 21, 16240-16251. | 1.3 | 45 |
| 7 | Ï€-Diradical Aromatic Soot Precursors in Flames. Journal of the American Chemical Society, 2021, 143, 12212-12219. | 6.6 | 41 |
| 8 | Giant fullerene formation through thermal treatment of fullerene soot. Carbon, 2017, 125, 132-138. | 5.4 | 37 |
| 9 | Polar curved polycyclic aromatic hydrocarbons in soot formation. Proceedings of the Combustion Institute, 2019, 37, 1117-1123. | 2.4 | 37 |
| 10 | Topology of Disordered 3D Graphene Networks. Physical Review Letters, 2019, 123, 116105. | 2.9 | 37 |
| 11 | An Ontology and Semantic Web Service for Quantum Chemistry Calculations. Journal of Chemical Information and Modeling, 2019, 59, 3154-3165. | 2.5 | 33 |
| 12 | Reactivity of Polycyclic Aromatic Hydrocarbon Soot Precursors: Kinetics and Equilibria. Journal of Physical Chemistry A, 2020, 124, 10040-10052. | 1.1 | 25 |
| 13 | The impact of cyclic fuels on the formation and structure of soot. Combustion and Flame, 2020, 219, 1-12. | 2.8 | 25 |
| 14 | Flexoelectricity and the Formation of Carbon Nanoparticles in Flames. Journal of Physical Chemistry C, 2018, 122, 22210-22215. | 1.5 | 23 |
| 15 | Exploring the internal structure of soot particles using nanoindentation: A reactive molecular dynamics study. Combustion and Flame, 2020, 219, 45-56. | 2.8 | 22 |
| 16 | Ion-Induced Soot Nucleation Using a New Potential for Curved Aromatics. Combustion Science and Technology, 2019, 191, 747-765. | 1.2 | 21 |
| 17 | Nanostructure of Gasification Charcoal (Biochar). Environmental Science & Technology, 2019, 53, 3538-3546. | 4.6 | 20 |
| 18 | Gold-sputtered Blu-ray discs: simple and inexpensive SERS substrates for sensitive detection of melamine. Analytical and Bioanalytical Chemistry, 2016, 408, 4403-4411. | 1.9 | 18 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Partitioning of polycyclic aromatic hydrocarbons in heterogeneous clusters. Carbon, 2019, 143, 247-256. | 5.4 | 17 |
| 20 | Can nascent soot particles burn from the inside?. Carbon, 2016, 109, 608-615. | 5.4 | 16 |
| 21 | Mechanical Properties of Soot Particles: The Impact of Crosslinked Polycyclic Aromatic Hydrocarbons. Combustion Science and Technology, 2021, 193, 643-663. | 1.2 | 14 |
| 22 | The role of oxygenated species in the growth of graphene, fullerenes and carbonaceous particles. Carbon, 2021, 182, 203-213. | 5.4 | 14 |
| 23 | Reactive localized Ï€-radicals on rim-based pentagonal rings: Properties and concentration in flames. Proceedings of the Combustion Institute, 2021, 38, 565-573. | 2.4 | 13 |
| 24 | Atomic structure and electronic structure of disordered graphitic carbon nitride. Carbon, 2019, 147, 483-489. | 5.4 | 12 |
| 25 | Aromatic penta-linked hydrocarbons in soot nanoparticle formation. Proceedings of the Combustion Institute, 2021, 38, 1525-1532. | 2.4 | 12 |
| 26 | Raman on a disc: high-quality Raman spectroscopy in an open channel on a centrifugal microfluidic disc. Analyst, The, 2017, 142, 1682-1688. | 1.7 | 11 |
| 27 | Dynamic polarity of curved aromatic soot precursors. Combustion and Flame, 2019, 206, 150-157. | 2.8 | 10 |
| 28 | On the reactive coagulation of incipient soot nanoparticles. Journal of Aerosol Science, 2022, 159, 105866. | 1.8 | 10 |
| 29 | A big data framework to validate thermodynamic data for chemical species. Combustion and Flame, 2017, 176, 584-591. | 2.8 | 8 |
| 30 | An assessment of the viability of alternatives to biodiesel transport fuels. Applied Energy, 2019, 251, 113363. | 5.1 | 6 |
| 31 | Gold sputtered Blu-Ray disks as novel and cost effective sensors for surface enhanced Raman spectroscopy. , 2015, , . | | 4 |
| 32 | Sphere Encapsulated Monte Carlo: Obtaining Minimum Energy Configurations of Large Aromatic Systems. Journal of Physical Chemistry A, 2019, 123, 7303-7313. | 1.1 | 4 |
| 33 | Self-assembly of curved aromatic molecules in nanoparticles. Carbon, 2021, 182, 70-88. | 5.4 | 4 |
| 34 | PyTrA: ultra-fast transient absorption data analysis software. International Journal of Nanotechnology, 2014, 11, 601. | 0.1 | 0 |