

# Leonardo C Pacheco-Londono

## List of Publications by Year in descending order

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82  
papers

970  
citations

516561

16  
h-index

526166

27  
g-index

83  
all docs

83  
docs citations

83  
times ranked

935  
citing authors

#	ARTICLE	IF	CITATIONS
1	Trace Detection of C-4 on Aluminum Using Mid-Infrared Reflection-Absorption Quantum Cascade Laser Spectroscopy. Smart Innovation, Systems and Technologies, 2022, , 227-239.	0.5	1
2	Docking and Molecular Dynamic of Microalgae Compounds as Potential Inhibitors of Beta-Lactamase. International Journal of Molecular Sciences, 2022, 23, 1630.	1.8	7
3	API Content and Blend Uniformity Using Quantum Cascade Laser Spectroscopy Coupled with Multivariate Analysis. Pharmaceutics, 2021, 13, 985.	2.0	3
4	Self-assembly and supramolecular isomerism in 1D metal-organometallic networks based on transition-metal assemblies from 1,1'-ferrocene-dicarboxylic acid and ancillary nitrogen heterocycle ligands. CrystEngComm, 2021, 23, 8198-8208.	1.3	3
5	Anomaly Identification during Polymerase Chain Reaction for Detecting SARS-CoV-2 Using Artificial Intelligence Trained from Simulated Data. Molecules, 2021, 26, 20.	1.7	8
6	Mid-Infrared Laser Spectroscopy Detection and Quantification of Explosives in Soils Using Multivariate Analysis and Artificial Intelligence. Applied Sciences (Switzerland), 2020, 10, 4178.	1.3	8
7	Artificial Intelligence Assisted Mid-Infrared Laser Spectroscopy In Situ Detection of Petroleum in Soils. Applied Sciences (Switzerland), 2020, 10, 1319.	1.3	16
8	Modulated-laser source induction system for remote detection of infrared emissions of high explosives using laser-induced thermal emission. Optical Engineering, 2020, 59, 1.	0.5	1
9	EXPRESS: Classical Least Squares-Assisted MIR Laser Spectroscopy Detection of High Explosives on Fabrics. Applied Spectroscopy, 2019, 73, 000370281878041.	1.2	10
10	Quantum cascade laser back-reflection spectroscopy at grazing-angle incidence using the fast Fourier transform as a data preprocessing algorithm. Journal of Chemometrics, 2019, 33, e3167.	0.7	3
11	Mid-Infrared Laser Spectroscopy Applications I: Detection of Traces of High Explosives on Reflective and Matte Substrates. , 2019, , .		4
12	Surface Persistence of Trace Level Deposits of Highly Energetic Materials. Molecules, 2019, 24, 3494.	1.7	4
13	Mid-Infrared Laser Spectroscopy Applications in Process Analytical Technology: Cleaning Validation, Microorganisms, and Active Pharmaceutical Ingredients in Formulations. , 2019, , .		1
14	Enhanced RDX Detection Studies on Various Types of Substrates via Tunable Quantum Cascade Laser Spectrometer Coupled with Grazing Angle Probe. IOP Conference Series: Materials Science and Engineering, 2019, 519, 012007.	0.3	3
15	Optical Properties of $\beta$ -RDX Thin Films Deposited on Gold and Stainless Steel Substrates Calculated from Reflection-Absorption Infrared Spectra. Applied Spectroscopy, 2017, 71, 1990-2000.	1.2	4
16	Active Mode Remote Infrared Spectroscopy Detection of TNT and PETN on Aluminum Substrates. Journal of Spectroscopy, 2017, 2017, 1-11.	0.6	17
17	Applications of Quantum Cascade Laser Spectroscopy in the Analysis of Pharmaceutical Formulations. Applied Spectroscopy, 2016, 70, 1511-1519.	1.2	15
18	Characterization of $\beta$ - and $\gamma$ -RDX Polymorphs in Crystalline Deposits on Stainless Steel Substrates. Crystal Growth and Design, 2016, 16, 3631-3638.	1.4	21

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19	Standoff Detection of Highly Energetic Materials Using Laser-Induced Thermal Excitation of Infrared Emission. <i>Applied Spectroscopy</i> , 2015, 69, 535-544.	1.2	24
20	Chemometrics-enhanced laser-induced thermal emission detection of PETN and other explosives on various substrates. <i>Journal of Chemometrics</i> , 2015, 29, 329-337.	0.7	10
21	Long and local range structural changes in M[(bdc)(ted) <sub>0.5</sub> ] (M=Zn, Ni or Cu) metal organic frameworks upon spontaneous thermal dispersion of LiCl and adsorption of carbon dioxide. <i>Microporous and Mesoporous Materials</i> , 2015, 212, 8-17.	2.2	28
22	Sublimation enthalpy of homemade peroxide explosives using a theoretically supported non-linear equation. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015, 119, 681-688.	2.0	4
23	Fabrication of Columnar Sub-microstructures using a Q-switched Nd:YAG Laser in the Nanosecond Time Regime. <i>Journal of Laser Micro Nanoengineering</i> , 2015, 10, 263-268.	0.4	0
24	Chemometrics-enhanced fiber optic Raman detection, discrimination and quantification of chemical agents simulants concealed in commercial bottles. <i>Analytical Chemistry Research</i> , 2014, 2, 15-22.	2.0	10
25	Angular dependence of source-target-detector in active mode standoff infrared detection. , 2013, , .		5
26	Mechanism for the Uncatalyzed Cyclic Acetone-Peroxide Formation Reaction: An Experimental and Computational Study. <i>Journal of Physical Chemistry A</i> , 2013, 117, 10753-10763.	1.1	4
27	Standoff laser-induced thermal emission of explosives. <i>Proceedings of SPIE</i> , 2013, , .	0.8	4
28	Improved detection of highly energetic materials traces on surfaces by standoff laser-induced thermal emission incorporating neural networks. <i>Proceedings of SPIE</i> , 2013, , .	0.8	1
29	Zero valent silver-based electrode for detection of 2,4,-dinitrotoluene in aqueous media. <i>Electrochimica Acta</i> , 2013, 88, 832-838.	2.6	16
30	Dependence of detection limits on angular alignment, substrate type and surface concentration in active mode standoff IR. , 2013, , .		3
31	FT-IR Standoff Detection of Thermally Excited Emissions of Trinitrotoluene (TNT) Deposited on Aluminum Substrates. <i>Applied Spectroscopy</i> , 2013, 67, 181-186.	1.2	21
32	A rapid technique for synthesis of metallic nanoparticles for surface enhanced Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2013, 44, 723-726.	1.2	6
33	Detection of Nitroaromatic and Peroxide Explosives in Air Using Infrared Spectroscopy: QCL and FTIR. <i>Advances in Optical Technologies</i> , 2013, 2013, 1-8.	0.8	17
34	Fiber Optic Coupled Raman Based Detection of Hazardous Liquids Concealed in Commercial Products. <i>International Journal of Spectroscopy</i> , 2012, 2012, 1-7.	1.4	13
35	TNT removal from culture media by three commonly available wild plants growing in the Caribbean. <i>Journal of Environmental Monitoring</i> , 2012, 14, 30-33.	2.1	3
36	Novel Uncatalyzed Synthesis and Characterization of Diacetone Diperoxide. <i>Propellants, Explosives, Pyrotechnics</i> , 2012, 37, 413-421.	1.0	10

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37	Vibrational spectroscopy standoff detection of threat chemicals. Proceedings of SPIE, 2011, , .	0.8	11
38	Open path FTIR detection of threat chemicals in air and on surfaces. Proceedings of SPIE, 2011, , .	0.8	7
39	Growth of Ag, Au, Cu, and Pt nanostructures on surfaces by micropatterned laser-image formations. Applied Optics, 2011, 50, 4161.	2.1	2
40	Nanosensors: From near field to far field applications. Proceedings of SPIE, 2011, , .	0.8	0
41	Monitoring the $\hat{1}\pm\hat{a}\dagger\hat{1}^2$ solidâ€“solid phase transition of RDX with Raman spectroscopy: A theoretical and experimental study. Journal of Molecular Structure, 2010, 970, 51-58.	1.8	57
42	Remote Continuous Wave and Pulsed Laser Raman Detection of Chemical Warfare Agents Simulants and Toxic Industrial Compounds. Sensing and Imaging, 2010, 11, 131-145.	1.0	17
43	Preparation of TNT, RDX and Ammonium Nitrate Standards on Gold-on-Silicon Surfaces by Thermal Inkjet Technology. Sensing and Imaging, 2010, 11, 147-169.	1.0	16
44	Vibrational spectra and structure of RDX and its <sup>13</sup> C- and <sup>15</sup> N-labeled derivatives: A theoretical and experimental study. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2010, 76, 137-141.	2.0	33
45	Remote Detection of Hazardous Liquids Concealed in Glass and Plastic Containers. IEEE Sensors Journal, 2010, 10, 693-698.	2.4	25
46	SERS and Density Functional Theory Study of o-Dinitrobenzene on Cu Nanoparticles. IEEE Sensors Journal, 2010, 10, 699-706.	2.4	6
47	Detection of High Explosives Using Reflection Absorption Infrared Spectroscopy with Fiber Coupled Grazing Angle Probe/FTIR. Sensing and Imaging, 2009, 10, 1-13.	1.0	36
48	Vibrational spectroscopy standoff detection of explosives. Analytical and Bioanalytical Chemistry, 2009, 395, 323-335.	1.9	114
49	Enhanced Raman Detection using Spray-On Nanoparticles/Remote Sensed Raman Spectroscopy. ACS Symposium Series, 2009, , 131-140.	0.5	1
50	High Explosives Mixtures Detection Using Fiber Optics Coupled: Grazing Angle Probe/Fourier Transform Reflection Absorption Infrared Spectroscopy. Sensing and Imaging, 2008, 9, 27-40.	1.0	12
51	Nanotechnology-Based Detection of Explosives and Biological Agents Simulants. IEEE Sensors Journal, 2008, 8, 963-973.	2.4	45
52	VIBRATIONAL SPECTROSCOPY OF CHEMICAL AGENTS SIMULANTS, DEGRADATION PRODUCTS OF CHEMICAL AGENTS AND TOXIC INDUSTRIAL COMPOUNDS. Selected Topics in Electronics and Systems, 2008, , 199-215.	0.2	0
53	Characterization of layers of Tetryl, TNB and HMX on metal surfaces using fiber optics coupled grazing angle-FTIR. , 2007, 6542, 1142.		5
54	Modeling of nitro group in explosives: spectroscopic measurements and theoretical calculations. , 2007, , .		0

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55	VIBRATIONAL SPECTROSCOPY OF CHEMICAL AGENTS SIMULANTS, DEGRADATION PRODUCTS OF CHEMICAL AGENTS AND TOXIC INDUSTRIAL COMPOUNDS. International Journal of High Speed Electronics and Systems, 2007, 17, 827-843.	0.3	8
56	Detection of hazardous liquids concealed in glass, plastic, and aluminum containers. , 2007, , .		0
57	Detection of simulants and degradation products of chemical warfare agents by vibrational spectroscopy. , 2007, , .		4
58	Detection of 2,4,6-trinitrotoluene on non-traditional surfaces using fiber optic coupled grazing angle probe: FTIR. , 2007, , .		5
59	Detection of explosive mixtures on surfaces using grazing angle probe - FTIR: model for classification. , 2006, , .		1
60	Standoff infrared detection of explosives at laboratory scale. , 2006, , .		4
61	Novel method for the preparation of explosives nanoparticles. , 2006, , .		4
62	Temperature dependence of detection limits of TNT on metallic surfaces using fiber optic coupled FTIR. , 2006, 6201, 719.		6
63	Characterization of peroxide-based explosives by thermal analysis. , 2006, , .		7
64	LIV Raman detection of 2,4-DNT in contact with sand particles. , 2006, 6217, 984.		6
65	Determination of TATP, DNT, and TNT in air by FTIR and PLS-discriminant analysis. , 2005, , .		2
66	Review of the various analytical techniques and algorithms for detection and quantification of TATP. , 2005, 5778, 317.		7
67	Characterization of thermal inkjet technology TNT deposits by fiber optic-grazing angle probe FTIR spectroscopy. , 2005, , .		10
68	Surface enhanced Raman scattering of nitroexplosives on nontraditional substrates. , 2005, , .		1
69	Characterization and differentiation of high energy cyclic organic peroxides by GC/FT-IR, GC-MS, FT-IR, and Raman microscopy. , 2005, , .		14
70	Use of fiber optic coupled FT-IR in detection of explosives on surfaces. , 2004, 5403, 237.		16
71	Molecular parameters and reactivity responsible for properties of nitro explosives. , 2004, 5403, 269.		2
72	Discriminant analysis for activation of the aryl hydrocarbon receptor by polychlorinated naphthalenes. Computational and Theoretical Chemistry, 2004, 678, 157-161.	1.5	18

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73	An experimental and theoretical study of the synthesis and vibrational spectroscopy of triacetone triperoxide (TATP). , 2004, 5403, 279.		13
74	Experimental and theoretical model of reactivity and vibrational detection modes of triacetone triperoxide (TATP) and homologues. , 2004, , .		1
75	Raman microspectroscopy crystallization studies of 2,4,6-TNT in different solvents. , 2004, , .		6
76	Spectroscopic characterization of nitroaromatic landmine signature explosives. , 2004, , .		3
77	Structural properties and photoreactivity relationships of substituted phenols in TiO <sub>2</sub> suspensions. Applied Catalysis B: Environmental, 2003, 43, 293-301.	10.8	62
78	Molecular Parameters Responsible for the Melting Point of 1,2,3-Diazaborine Compounds.. ChemInform, 2003, 34, no.	0.1	0
79	Molecular Parameters Responsible for the Melting Point of 1,2,3-Diazaborine Compounds. Journal of Chemical Information and Computer Sciences, 2003, 43, 1513-1519.	2.8	20
80	Structure-Activity Relationships for The Anti-HIV Activity of Flavonoids. Journal of Chemical Information and Computer Sciences, 2002, 42, 1241-1246.	2.8	54
81	Structure-Activity Relationships for the anti-HIV Activity of Flavonoids.. ChemInform, 2002, 33, 221-221.	0.1	0
82	Detection of Primary and Secondary Explosives Using Infrared Spectroscopy and Chemometrics. , 0, , .		0