# Maurizio Becucci

List of Publications by Year
in descending order



| 111 | 2,062 | 236925 | 315739 |
|---|---|---|---|
| papers | citations | 25 h-index | 38 g-index |

| 115 | 115 | 115 | 2070 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Noninvasive identification of turmeric and saffron dyes in proteinaceous textile fibres using Raman spectroscopy and multivariate analysis. Journal of Raman Spectroscopy, 2022, 53, 593-607. | 2.5 | 4 |
| 2 | An active site at work â€“ the role of key residues in C. diphteriae coproheme decarboxylase. Journal of Inorganic Biochemistry, 2022, 229, 111718. | 3.5 | 9 |
| 3 | Microplastics in the Florence wastewater treatment plant studied by a continuous sampling method and Raman spectroscopy: A preliminary investigation. Science of the Total Environment, 2022, 808, 152025. | 8.0 | 19 |
| 4 | Linear and Non-Linear Middle Infrared Spectra of Penicillin G in the CO Stretching Mode Region. Symmetry, 2021, 13, 106. | 2.2 | 2 |
| 5 | Surface-Enhanced Raman Spectroscopy for Bisphenols Detection: Toward a Better Understanding of the Analyteâ€“Nanosystem Interactions. Nanomaterials, 2021, 11, 881. | 4.1 | 14 |
| 6 | Exciplex Formation in Lipidâ€bound Escherichia coli Flavohemoglobin. ChemPhysChem, 2021, 22, 1134-1140. | 2.1 | 0 |
| 7 | Detecting rotational disorder in heme proteins: A comparison between resonance Raman spectroscopy, nuclear magnetic resonance, and circular dichroism. Journal of Raman Spectroscopy, 2021, 52, 2536-2549. | 2.5 | 4 |
| 8 | Yb3+:(LuxY1â^'x)2O3 mixed sesquioxide ceramics for laser applications. Part I: Fabrication, microstructure and spectroscopy. Journal of Alloys and Compounds, 2021, 869, 159227. | 5.5 | 13 |
| 9 | Multi-analytical approach to the study of mecca gilding technique. Microchemical Journal, 2021, 168, 106415. | 4.5 | 2 |
| 10 | Reaction intermediate rotation during the decarboxylation of coproheme to heme b in C.Âdiphtheriae. Biophysical Journal, 2021, 120, 3600-3614. | 0.5 | 12 |
| 11 | Direct microextraction for red lakes detection in painting layers by Raman spectroscopy. European Physical Journal Plus, 2021, 136, 1. | 2.6 | 3 |
| 12 | Lack of orientation selectivity of the heme insertion in murine neuroglobin revealed by resonance Raman spectroscopy. FEBS Journal, 2020, 287, 4082-4097. | 4.7 | 13 |
| 13 | Surface-enhanced Raman scattering of glyphosate on dispersed silver nanoparticles: A reinterpretation based on model molecules. Vibrational Spectroscopy, 2020, 108, 103061. | 2.2 | 14 |
| 14 | Surface Enhanced Raman Spectroscopy for In-Field Detection of Pesticides: A Test on Dimethoate Residues in Water and on Olive Leaves. Molecules, 2019, 24, 292. | 3.8 | 26 |
| 15 | Chemical enhancement in the SERS spectra of indigo: DFT calculation of the Raman spectra of indigo-Ag14 complexes. Vibrational Spectroscopy, 2019, 100, 159-166. | 2.2 | 9 |
| 16 | Silver nanowires as infrared-active materials for surface-enhanced Raman scattering. Nanoscale, 2018, 10, 9329-9337. | 5.6 | 19 |
| 17 | On the SERS quantitative determination of organic dyes. Journal of Raman Spectroscopy, 2018, 49, 997-1005. | 2.5 | 18 |
| 18 | The Raman and SERS spectra of indigo and indigo-Ag2 complex: DFT calculation and comparison with experiment. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 188, 141-148. | 3.9 | 24 |

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| 19 | The ageing of model pigment/linseed oil systems studied by means of vibrational spectroscopies and chemometrics. Vibrational Spectroscopy, 2018, 99, 86-92. | 2.2 | 4 |
| 20 | An improved experimental scheme for simultaneous measurement of high-resolution zero electron kinetic energy (ZEKE) photoelectron and threshold photoion (MATI) spectra. Chemical Physics Letters, 2017, 685, 477-481. | 2.6 | 2 |
| 21 | Non-covalent interactions in anisoleâ€“(CO<sub>2</sub>)<sub>n</sub> (n = 1, 2) complexes. Physical Chemistry Chemical Physics, 2017, 19, 22749-22758. | 2.8 | 3 |
| 22 | Vibrational Spectroscopies and Chemometry for Nondestructive Identification and Differentiation of Painting Binders. Journal of Chemistry, 2017, 2017, 1-10. | 1.9 | 7 |
| 23 | Microanalysis of Organic Pigments in Ancient Textiles by Surface-Enhanced Raman Scattering on Agar Gel Matrices. Journal of Spectroscopy, 2016, 2016, 1-10. | 1.3 | 20 |
| 24 | Resonance Raman Spectra of o-Safranin Dye, Free and Adsorbed on Silver Nanoparticles: Experiment and Density Functional Theory Calculation. Journal of Physical Chemistry A, 2016, 120, 5307-5314. | 2.5 | 17 |
| 25 | Identification of organic dyes by surface-enhanced Raman scattering in nano-composite agar-gel matrices: evaluation of the enhancement factor. Optical and Quantum Electronics, 2016, 48, 1. | 3.3 | 4 |
| 26 | SERS Spectra of Alizarin Anionâ€“Ag<sub>n</sub> (n = 2, 4, 14) Systems: TDDFT Calculation and Comparison with Experiment. Journal of Physical Chemistry C, 2016, 120, 12234-12241. | 3.1 | 14 |
| 27 | High-Resolution Spectroscopic Studies of Complexes Formed by Medium-Size Organic Molecules. Chemical Reviews, 2016, 116, 5014-5037. | 47.7 | 80 |
| 28 | Multivariate analysis of combined reflectance FT-NIR and micro-Raman spectra on oil-paint models. Microchemical Journal, 2016, 124, 703-711. | 4.5 | 14 |
| 29 | Multivariate Analysis of Combined Fourier Transform Near-Infrared Spectrometry (FT-NIR) and Raman Datasets for Improved Discrimination of Drying Oils. Applied Spectroscopy, 2015, 69, 865-876. | 2.2 | 25 |
| 30 | Binding Energies of the Ï€-Stacked Anisole Dimer: New Molecular Beam-Laser Spectroscopy Experiments and CCSD(T) Calculations. Chemistry - A European Journal, 2015, 21, 6637-6637. | 3.3 | 3 |
| 31 | The SERS spectra of alizarin and its ionized species: The contribution of the molecular resonance to the spectral enhancement. Journal of Molecular Structure, 2015, 1090, 98-106. | 3.6 | 15 |
| 32 | Binding Energies of the Ï€â€Stacked Anisole Dimer: New Molecular Beamâ€”Laser Spectroscopy Experiments and CCSD(T) Calculations. Chemistry - A European Journal, 2015, 21, 6740-6746. | 3.3 | 18 |
| 33 | Determination of binding energy in molecular clusters by ion imaging methods: A test on the phenolâ€“water 1:1 cluster. Journal of Molecular Structure, 2015, 1090, 2-6. | 3.6 | 2 |
| 34 | Tailored micro-extraction method for Raman/SERS detection of indigoids in ancient textiles. Analytical and Bioanalytical Chemistry, 2015, 407, 6505-6514. | 3.7 | 39 |
| 35 | Structure and energetics of the anisoleâ€“Ar<sub>n</sub> (n = 1, 2, 3) complexes: high-resolution resonant two-photon and threshold ionization experiments, and quantum chemical calculations. Physical Chemistry Chemical Physics, 2015, 17, 12530-12537. | 2.8 | 8 |
| 36 | Safranin-O dye in the ground state. A study by density functional theory, Raman, SERS and infrared spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 137, 677-684. | 3.9 | 20 |

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| 37 | Suitability of Agâ€agar gel for the microâ€extraction of organic dyes on different substrates: the case study of wool, silk, printed cotton and a panel painting mockâ€up. Journal of Raman Spectroscopy, 2014, 45, 1133-1139. | 2.5 | 34 |
| 38 | Photoacoustic excitation profiles of gold nanoparticles. Photoacoustics, 2014, 2, 47-53. | 7.8 | 37 |
| 39 | Binding energy determination in a Ï€-stacked aromatic cluster: the anisole dimer. Physical Chemistry Chemical Physics, 2013, 15, 11268. | 2.8 | 14 |
| 40 | SERS detection of red organic dyes in Agâ€agar gel. Journal of Raman Spectroscopy, 2013, 44, 47-54. | 2.5 | 81 |
| 41 | Noncovalent Interactions in the Gas Phase: The Anisoleâ€“Phenol Complex. Journal of Physical Chemistry A, 2011, 115, 9603-9611. | 2.5 | 38 |
| 42 | Photoelectron imaging as a tool in photoionization studies. Journal of Molecular Structure, 2011, 993, 510-515. | 3.6 | 3 |
| 43 | Laser sources for efficient two-step Positronium excitation to Rydberg states. Journal of Molecular Structure, 2011, 993, 495-499. | 3.6 | 3 |
| 44 | Excitonic coupling in van der waals complexes: The anisole dimers. Journal of Molecular Structure, 2011, 993, 491-494. | 3.6 | 9 |
| 45 | Integrated experimental and computational spectroscopy study on Ï€-stacking interaction: the anisole dimer. Physical Chemistry Chemical Physics, 2010, 12, 13547. | 2.8 | 24 |
| 46 | The Gas Phase Anisole Dimer: A Combined High-Resolution Spectroscopy and Computational Study of a Stacked Molecular System. Journal of Physical Chemistry A, 2009, 113, 14343-14351. | 2.5 | 52 |
| 47 | High resolution electronic spectroscopy on deuterated anisole. Journal of Molecular Structure, 2009, 924-926, 457-460. | 3.6 | 12 |
| 48 | Versatile pulsed laser setup for depth profiling analysis of multilayered samples in the field of cultural heritage. Journal of Molecular Structure, 2009, 924-926, 420-426. | 3.6 | 17 |
| 49 | Analysis of natural and artificial ultramarine blue pigments using laser induced breakdown and pulsed Raman spectroscopy, statistical analysis and light microscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2009, 73, 525-531. | 3.9 | 143 |
| 50 | trans-Formanilide: On the properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si67.gif" display="inline" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>S</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mr | 2.6 | 5 |
| 51 | state from high resolution electronic spectroscopy and ab initio calculations. Chemical Physics Letters, 2009, 475, 30-33. New Insights on the Photodissociation of N-Methylpyrrole: The Role of Stereoelectronic Effects. Journal of Physical Chemistry A, 2009, 113, 14554-14558. | 2.5 | 16 |
| 52 | A new compact instrument for Raman, laser-induced breakdown, and laser-induced fluorescence spectroscopy of works of art and their constituent materials. Review of Scientific Instruments, 2009, 80, 076109. | 1.3 | 34 |
| 53 | Microâ€Raman and fluorescence spectroscopy for the assessment of the effects of the exposure to light on films of egg white and egg yolk. Journal of Raman Spectroscopy, 2008, 39, 307-313. | 2.5 | 37 |
| 54 | Microsolvation in molecular complexes. Physica Scripta, 2008, 78, 058109. | 2.5 | 2 |

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| 55 | Photodetachment and dissociation dynamics of microsolvated iodide clusters. Physica Scripta, 2008, 78, 058110. | 2.5 | 3 |
| 56 | On the properties of microsolvated molecules in the ground (S) and excited (S1) states: The anisole-ammonia 1:1 complex. Journal of Chemical Physics, 2007, 127, 144303. | 3.0 | 35 |
| 57 | Isotopomeric Conformational Changes in the Anisoleâ^'Water Complex:Â New Insights from HR-UV Spectroscopy and Theoretical Studiesâ€. Journal of Physical Chemistry A, 2007, 111, 12363-12371. | 2.5 | 29 |
| 58 | The anisoleâ€“ammonia complex: Marks of the intermolecular interactions. Chemical Physics Letters, 2007, 434, 25-30. | 2.6 | 18 |
| 59 | The anilineâ€“water and anilineâ€“methanol complexes in the S1 excited state. Chemical Physics, 2006, 330, 138-145. | 1.9 | 25 |
| 60 | Dissociative photodetachment dynamics of the iodide-aniline cluster. Journal of Chemical Physics, 2006, 125, 133309. | 3.0 | 11 |
| 61 | Photoacoustic measurement of lutein in biological matrix. European Physical Journal Special Topics, 2005, 125, 825-828. | 0.2 | 6 |
| 62 | <title>A combined Raman-LIBS spectrometer: toward a mobile atomic and molecular analytical tool for in situ applications</title>. , 2005, , . | | 6 |
| 63 | Structural Determinations and Dynamics on Floppy Molecular Systems. AIP Conference Proceedings, 2005, , . | 0.4 | 0 |
| 64 | Variable gain detection strategy for time-of-flight multiphoton ionization spectroscopy experiments. Review of Scientific Instruments, 2005, 76, 113105. | 1.3 | 8 |
| 65 | Dissociative Photodetachment Dynamics of Solvated Iodine Cluster Anions. Journal of Physical Chemistry A, 2005, 109, 11781-11792. | 2.5 | 20 |
| 66 | A study on the anisoleâ€“water complex by molecular beamâ€“electronic spectroscopy and molecular mechanics calculations. Journal of Chemical Physics, 2004, 120, 5601-5607. | 3.0 | 47 |
| 67 | Vibrational predissociation dynamics of the anilineâ€“neon Van der Waals complex: an ab initio study. Chemical Physics, 2004, 303, 143-150. | 1.9 | 4 |
| 68 | High resolution molecular beam spectroscopy of low frequency vibronic bands of the S1â†S0 electronic transition of 1,3-benzodioxole. Chemical Physics Letters, 2004, 385, 304-308. | 2.6 | 10 |
| 69 | Dynamics of vibronically excited states of the anilineâ€“neon van der Waals complex: vibrational predissociation versus intramolecular vibrational redistribution. Chemical Physics Letters, 2004, 390, 29-34. | 2.6 | 4 |
| 70 | The anomeric effect in 1,3-benzodioxole: additional evidence from the rotational, vibrationâ€“rotation and rovibronic spectra. Physical Chemistry Chemical Physics, 2004, 6, 5469-5475. | 2.8 | 14 |
| 71 | New Insight into the Peroxidaseâ^'Hydroxamic Acid Interaction Revealed by the Combination of Spectroscopic and Crystallographic Studies. Biochemistry, 2003, 42, 14066-14074. | 2.5 | 22 |
| 72 | A study on the anisoleâ€“carbon dioxide van der Waals complex by high resolution electronic spectroscopy. Physical Chemistry Chemical Physics, 2002, 4, 5590-5593. | 2.8 | 16 |

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| 73 | Differential Activity and Structure of Highly Similar Peroxidases. Spectroscopic, Crystallographic, and Enzymatic Analyses of Lignifying Arabidopsis thaliana Peroxidase A2 and Horseradish Peroxidase A2,. Biochemistry, 2001, 40, 11013-11021. | 2.5 | 90 |
| 74 | The high resolution spectrum of the S1â†S0 transition of anisole. Physical Chemistry Chemical Physics, 2001, 3, 1407-1410. | 2.8 | 51 |
| 75 | Vibrational spectrum of 4-fluoraniline. Journal of Molecular Structure, 2001, 565-566, 421-425. | 3.6 | 39 |
| 76 | Rotationally resolved electronic spectroscopy of aniline excited vibronic levels. Chemical Physics Letters, 2001, 335, 195-200. | 2.6 | 5 |
| 77 | Potential coupling of intramolecular to intermolecular modes: an ab initio study of the amino inversion and van der Waals motions in the anilineâ€“argon complex. Chemical Physics, 2001, 269, 29-36. | 1.9 | 11 |
| 78 | NH2 inversion potential in the S0 and S1 electronic states of aniline: fit to the (ro-)vibrational data and comparison with ab initio and density functional results. Chemical Physics Letters, 2000, 327, 45-53. | 2.6 | 27 |
| 79 | The jet-cooled S0â†'S1 excitation spectrum of 1,6-epoxy-[10]annulene. Chemical Physics Letters, 2000, 330, 315-324. | 2.6 | 2 |
| 80 | Large amplitude motions in the electronic ground state of 4-fluoroaniline. Physical Chemistry Chemical Physics, 2000, 2, 1351-1355. | 2.8 | 6 |
| 81 | Vibrational predissociation dynamics in the vibronic states of the anilineâ€“neon van der Waals complex: New features revealed by complementary spectroscopic approaches. Journal of Chemical Physics, 1999, 110, 9961-9970. | 3.0 | 22 |
| 82 | High resolution electronic spectroscopy of 4-fluoroaniline in a molecular beam: new experimental results and their interpretation in terms of molecular geometry. Journal of Molecular Structure, 1999, 480-481, 269-272. | 3.6 | 2 |
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| 84 | Peroxidase-benzhydroxamic acid complexes: spectroscopic evidence that a Fe-H2O distance of 2.6â€‰Ã… can correspond to hexa-coordinate high-spin heme. Journal of Biological Inorganic Chemistry, 1999, 4, 39-47. | 2.6 | 30 |
| 85 | Inversion Motion and S1Equilibrium Geometry of 4-Fluoroaniline:Â Molecular Beam High-Resolution Spectroscopy and ab Initio Calculations. Journal of Physical Chemistry A, 1999, 103, 8946-8951. | 2.5 | 16 |
| 86 | Accuracy of remote sensing of water temperature by Raman spectroscopy. Applied Optics, 1999, 38, 928. | 2.1 | 35 |
| 87 | Vibration-rotation Raman spectrum of13C-containing acetylene. Journal of Raman Spectroscopy, 1998, 29, 237-241. | 2.5 | 8 |
| 88 | High resolution Raman study of phonon and vibron bandwidths in isotopically pure and natural benzene crystal. Journal of Chemical Physics, 1998, 109, 5469-5480. | 3.0 | 16 |
| 89 | Vibrational spectrum of 1,1,1-trifluoroethane. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 2909-2912. | 1.7 | 6 |
| 90 | High-resolution spectroscopy of 4-fluorostyrene-rare gas van der Waals complexes: Results and comparison with theoretical calculations. Journal of Chemical Physics, 1998, 108, 1836-1850. | 3.0 | 17 |

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| 91 | High resolution optothermal spectroscopy of pyridine in the S1 state. Journal of Chemical Physics, 1997, 107, 10399-10405. | 3.0 | 21 |
| 92 | Optothermal spectroscopy of the dissociating lowest electronic singlet states of s-tetrazine and dimethyl-s-tetrazine in a molecular beam. Journal of Chemical Physics, 1997, 106, 1318-1325. | 3.0 | 13 |
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| 94 | Optothermal detection of non-radiative excited states of aromatic molecules in a molecular beam. Journal of Photochemistry and Photobiology A: Chemistry, 1997, 105, 109-113. | 3.9 | 1 |
| 95 | Raman spectroscopic study of pure p-terphenyl and tetracene:p-terphenyl doped crystals. Solid State Ionics, 1997, 97, 115-121. | 2.7 | 16 |
| 96 | High resolution spectroscopy of the S1 â†•S0 electronic transition of 4-fluorostyrene in a molecular beam. Journal of Molecular Structure, 1997, 410-411, 59-63. | 3.6 | 0 |
| 97 | Order-disorder phase transition in p-terphenyl and p-terphenyl: tetracene doped crystals as studied by Raman spectroscopy. Journal of Molecular Structure, 1997, 416, 69-73. | 3.6 | 7 |
| 98 | High-resolution spectroscopy of aniline-rare gas Van der Waals complexes: results and comparison with theoretical predictions. Chemical Physics Letters, 1996, 260, 87-94. | 2.6 | 33 |
| 99 | Molecular Beam Spectroscopy ofS1Aniline: Assignments for the 000, 6a10,l20, and 110Rovibronic Bands. Journal of Molecular Spectroscopy, 1996, 177, 74-78. | 1.2 | 29 |
| 100 | High-resolution absorption, excitation, and microwave-UV double resonance spectroscopy on a molecular beam: S1 aniline. Chemical Physics, 1995, 199, 263-273. | 1.9 | 45 |
| 101 | Phonon dynamics and relaxation processes in isotopically pure 35Cl2 and natural crystalline chlorine. Journal of Chemical Physics, 1995, 102, 9191-9196. | 3.0 | 4 |
| 102 | Reinvestigation of the 2v<sub>1</sub> Band in Trifluoropropyne using a Frequency Stabilized 1.5 Î¼m Color Center Laser in Conjunction with a Laser Field Buildâ€up Cavity. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1995, 99, 548-554. | 0.9 | 9 |
| 103 | Molecular beam infrared spectroscopy and intramolecular dynamics of SF5CCH in the region of the fundamental and first overtone of the acetylenic CH stretch. Chemical Physics, 1994, 187, 11-19. | 1.9 | 6 |
| 104 | Raman linewidths in ferroelectric NaNO2. Chemical Physics, 1994, 187, 263-273. | 1.9 | 3 |
| 105 | Vibrational Raman spectroscopy of solid benzene : hexafluorobenzene. Chemical Physics, 1993, 177, 191-202. | 1.9 | 5 |
| 106 | Non-diamond carbon phases in plasma-assisted deposition of crystalline diamond films: a Raman study. Diamond and Related Materials, 1993, 2, 1257-1262. | 3.9 | 35 |
| 107 | Temperature dependence of vibrational relaxation processes in sulfur crystals: Effect of isotopic impurities. Journal of Chemical Physics, 1992, 96, 98-109. | 3.0 | 32 |
| 108 | High resolution Raman measurements of the temperature variation of the bandwidth of some lattice phonons and of one internal vibron of Î±-oxalic acid. Journal of Molecular Structure, 1990, 224, 471-482. | 3.6 | 5 |

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| 109 | Investigation of the relaxation dynamics of phonons in NaNO2 by means of high-resolution raman linewidth measurements. Chemical Physics, 1989, 135, 363-373. | 1.9 | 13 |
| 110 | Spectroscopic evidence of the effect of hydrogen peroxide excess on the coproheme decarboxylase from actinobacterial <scp> Corynebacterium diphtheriae </scp>. Journal of Raman Spectroscopy, 0, , . | 2.5 | 4 |
| 111 | Probing the Role of Murine Neuroglobin CDloopâ€“D-Helix Unit in CO Ligand Binding and Structural Dynamics. ACS Chemical Biology, 0, , . | 3.4 | 2 |