

Selected Publications

A. Filippi, M. E. Crestoni, C. Fraschetti, M. Montagna, L. Guarcini, E. Marcantoni, M. Glucini, M. Speranza
Reactivity of Contact Ion Pairs in a Charged Monotopic Receptor
Int. J. Mass Spectrom. **2016**, doi.org/10.1016/j.ijms.2016.08.003

F. G. Cantú Reinhard, M. A. Sainna, P. Upadhayay, G. A. Balan, D. Kumar, S. Fornarini, M. E. Crestoni, S. P. de Visser
A systematic account on aromatic hydroxylation by a cytochrome P450 model Compound I: A low-pressure mass spectrometry and computational study
Chem. Eur. J. **2016**, 22, 18608-18619.

C. Fraschetti, A. Filippi, M. E. Crestoni, E. Marcantoni, M. Glucini, L. Guarcini, M. Montagna, L. Guidoni, M. Speranza
Contact Ion Pairs on a Protonated Azamacrocyclic: The Role of the Anion Basicity
J. Am. Soc. Mass Spectrom. **2016**, 27, 615-621.

R. K. Sinha, D. Scuderi, P. Maitre, B. Chiavarino, M. E. Crestoni, S. Fornarini
Elusive Sulfurous Acid: Gas Phase Basicity and IR Signature of the Protonated Species
J. Phys. Chem. Lett., **2015**, 6, 1605–1610. DOI: 10.1021/acs.jpcllett.5b00450

M. E. Crestoni, B. Chiavarino, S. Fornarini
Nitrosyl-Heme and Anion-Arene Complexes: Structure, Reactivity and Spectroscopy
Pure Appl. Chem. **2015**, 87, 379-390.

M.A Sainna, S. Kumar, D. Kumar, S. Fornarini, M. E. Crestoni, S. de Visser
A comprehensive test set of epoxidation rate constants by iron(IV)-oxo porphyrin cation radical complexes
Chem. Sci., **2015**, 6, 1516 – 1529. DOI: 10.1039/c4sc02717e

C. Fraschetti, A. Filippi, M. E. Crestoni, E. Marcantoni, M. Glucini, L. Guarcini, M. Montagna, L. Guidoni, M. Speranza
Protonated hexaazamacrocyclics as selective K⁺ receptors
J. Am. Soc. Mass Spectrom. **2015**, 26, 1186-1190.

B. Chiavarino, M. E. Crestoni, S. Fornarini
Intrinsic Properties of Nitric Oxide Binding to Ferrous and Ferric Hemes
Croatica Chemica Acta **2014**, 87, 307-314. DOI: [10.5562/cca2488](https://doi.org/10.5562/cca2488)

F. Lanucara, S. Fornarini, C. E. Eyers, M. E. Crestoni
Probing the exposure of the phosphate group in modified amino acids and peptides by ion-molecule reactions with triethoxyborane in FT-ICR mass spectrometry
Rapid Commun. Mass Spectrom. **2014**, 28, 1107–1116

H.-U. Siehl, S. Brixner, C. Coletti, N. Re, B. Chiavarino, M. E. Crestoni, A. De Petris, S. Fornarini
Isomeric C₅H₁₁Si⁺ ions from the trimethylsilylation of acetylene: an experimental and theoretical study
Int. J. Mass Spectrom. **2013**, 334, 58-66. DOI: 10.1016/j.ijms.2012.10.007

C. Fraschetti, A. Filippi, M. E. Crestoni, T. Ema, M. Speranza
Multifunctional Macrocyclic Receptors as Templates for Aromatic Amino Acids: A Rare Example of a Highly Selective Multi-Input Multi-Output Chemo-“Logic Gate”
ChemPlusChem **2013**, 78, 979-987.

C. Fraschetti, A. Filippi, M. E. Crestoni, T. Ema, M. Speranza

Unexpected Behavior of Diastereomeric Ions in the GasPhase: A Stimulus for Pondering on ee Measurements by ESI-MS

J. Am. Soc. Mass Spectrom. **2013**, 24, 573-578.

C. Fraschetti, A. Filippi, M. E. Crestoni, C. Villani, G. Roselli, S. Levi Mortera, M. Speranza

Enantioselective Supramolecular carriers for Nucleoside Drugs. A Thermodynamic and Kinetic Gas Phase Investigation

J. Am. Soc. Mass Spectrom. **2012**, 23, 1778-1785 DOI : 10.1007/s13361-012-0432-9

F. Lanucara, M. E. Crestoni

Biomimetic Oxidation Reactions of a Naked Manganese(V)-Oxo Porphyrin Complex

Chem. Eur. J. **2011**, 17, 12092-12100. DOI: 10.1002/chem.201101432

Y. Lin, M. E. Crestoni, S. Fornarini, P. M. Mayer

A neutralization-reionization and reactivity mass spectrometry study of the generation of neutral hydroxymethylene.

J. Mass Spectrom. **2011**, 46, 546-552. DOI: 10.1002/jms.1923

F. Lanucara, B. Chiavarino, M. E. Crestoni, D. Scuderi, R. K. Sinha, P. Maitre, S. Fornarini

Naked Five-Coordinate FeIII(NO) Porphyrin Complexes: Vibrational and Reactivity Features

Inorg. Chem. **2011**, 50, 4445-4452.

B. Chiavarino, M. E. Crestoni, S. Fornarini, F. Lanucara

Probing Bare High-Valent Transition Metal–Oxo Complexes: an ESI FT-ICR Study of Reactive Intermediates

Eur. J. Mass Spectrom. **2010**, 16, 407-414. DOI: 10.1255/ejms.1042

M. E. Crestoni, S. Fornarini, F. Lanucara, J. J. Warren, J. M. Mayer

Probing Spin-Forbidden' Oxygen-Atom Transfer: Gas-Phase Reactions of Chromium-Porphyrin Complexes

J. Am. Chem. Soc. **2010**, 132, 4336-4343. DOI: 10.1021/ja9103638

M. E. Crestoni, S. Fornarini, F. Lanucara

Oxygen-Atom Transfer by a Naked Manganese(V)–Oxo–Porphyrin Complex Reveals Axial Ligand Effect

Chem. Eur. J. **2009**, 15, 7863-7866. DOI: 10.1002/chem.200901361

B. Chiavarino, M. E. Crestoni, S. Fornarini, C. Rovira

Unravelling the Intrinsic Features of NO Binding to Iron(II)- and Iron(III)-hemes

Inorg. Chem. **2008**, 47, 7792-7801. DOI: [10.1021/ic800953w](https://doi.org/10.1021/ic800953w)

B. Chiavarino, M. E. Crestoni, S. Fornarini, F. Lanucara, J. Lemaire, P. Maitre, D. Scuderi

Direct probe of NO vibration in the naked ferric heme nitrosyl complex

ChemPhysChem **2008**, 9, 826-828.

B. Chiavarino, R. Cipollini, M. E. Crestoni, S. Fornarini, F. Lanucara, A. Lapi,

Probing the Compound I-like Reactivity of a Bare High-Valent Oxo Iron Porphyrin Complex: The Oxidation of Tertiary Amines

J. Am. Chem. Soc. **2008**, 130, 3208-3217.

B. Botta, A. Tafi, F. Caporuscio, M. Botta, L. Nevola, I. D'Acquarica, C. Fraschetti, M. Speranza

Modelling Amphetamine/Receptor Interactions: A Gas-Phase Study of Complexes Formed between Amphetamine and Some Chiral Amido[4]resorcinarenes

Chem. Eur. J. **2008**, 14, 3585-3595.

F. Gasparrini, M. Pierini, C. Villani, A. Filippi, M. Speranza

Induced-Fit in the Gas Phase: Conformational Effects on the Enantioselectivity of Chiral Tetra-Amide Macrocycles

J. Am. Chem. Soc. **2008**, 130, 522-534.

M. E. Crestoni, S. Fornarini

Compound I of Naked Heme (Iron Protoporphyrin IX)

Inorg. Chem. **2007**, 46, 9018-9020.

B. Chiavarino, M. E. Crestoni, S. Fornarini, C. Rovira

Protonated heme

Chem. Eur. J. **2007**, 13, 776-785.

M. E. Crestoni, S. Fornarini

Heme-peptide/protein ions and phosphorous ligands: Search for site-specific addition reactions

J. Biol. Inorg. Chem. **2007**, 12, 22-35.

B. Botta, I. D'Acquarica, G. Delle Monache, D. Subissati, G. Uccello-Barretta, M. Mastrini, S. Nazzi, M. Speranza

Synthesis and Host-Guest Studies of Chiral N-Linked Peptidoresorc[4]arenes

J. Org. Chem. **2007**, 72, 9283-9290.

B. Botta, G. Delle Monache, C. Frascchetti, L. Nevola, D. Subissati, M. Speranza

Gaseous- versus solution-phase recognition of some aromatic amino esters by 2,8,14,20-tetrakis(L-valinamido)[4]resorcinarene

Int. J. Mass Spectrom. **2007**, 267, 24-29.