

---

**Prof. Maurizio D'Auria**

---

### **CURRICULUM SCIENTIFICO**

Il Prof. Maurizio D'Auria è nato a Roma nel 1953 e si è laureato in Chimica nel 1977. E' stato titolare di una borsa di studio della Fondazione Donegani dell'Accademia Nazionale dei Lincei dal 1979 al 1981. E' stato ricercatore confermato dal 1981 al 1992. Dal 1992 al 2001 è stato Professore Associato di Chimica Organica presso l'Università della Basilicata. Dal 2001 è Professore Ordinario presso la Facoltà di Agraria dell'Università della Basilicata. Dal 2012 è Professore ordinario presso il nuovo Dipartimento di Scienze dell'Università della Basilicata. Dal 2009 è coordinatore del dottorato in Scienze Chimiche. E' membro dell'Executive Committee dell'European Photochemistry Association.

Dal 1994 al 1996 è stato Presidente della Sezione Basilicata della Società Chimica Italiana. Dal 1997 al 1999 è stato membro del Direttivo della Sezione Interdivisionale di Fotochimica della Società Chimica Italiana. E' membro della Società Chimica Italiana, dell'American Chemical Society, dell'American Society of Photobiology e dell'European Photochemical Association. E' membro dell'Editorial Board di Internet Journal of Science, di Arkivoc e di Letters in Organic Chemistry. E' Editor in chief di EPA Newsletter, rivista dell'European Photochemistry Association. E' stato membro di comitati scientifici e organizzatori di numerosi convegni fra cui il Secondo Convegno Nazionale di Fotochimica e Fotobiologia e il V Convegno Nazionale "Giornate di Chimica delle Sostanze Naturali" è membro del Comitato Scientifico della Scuola di Sostanze Naturali "Minale".

I suoi principali interessi scientifici sono stati relativi allo studio della reattività chimica e fotochimica di composti eterociclici. E' stato studiato il comportamento di derivati furanici in condizioni idrolitiche e in condizioni ossidative. Di molti composti eterociclici aromatici pentaatomici è stato studiato il comportamento fotochimico sia verso reazioni di fotosostituzioni, reazioni utilizzate nella sintesi di composti naturali con una spiccata attività biologica come fotosensibilizzatori dell'ossigeno singoletto, sia verso reazioni di trasposizione. Da alcuni anni il Prof. D'Auria ha iniziato a studiare la degradazione fotochimica di numerose sostanze naturali e non. In particolare è stato studiato il comportamento fotochimico di composti modello della lignina e della lignina stessa in presenza di ossigeno singoletto generato per via fotochimica e il comportamento fotochimico di alcuni erbicidi.

E' autore di oltre 200 pubblicazioni su riviste scientifiche internazionali oltre a numerosi brevetti. Il suo H-index, aggiornato al 21.12.2012, è 26.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

---

**Principali Pubblicazioni / Selected Papers and Publications:**

**Piancatelli, G.; Scettri, A.; D'Auria, M.**

The Oxidation of Furan Derivatives with Pyridinium Chlorochromate: a Novel Synthesis of 6-Hydroxy-2H-pyran-3(6H)-ones

*Tetrahedron Letters*, **1977**, 2199.

2. **Piancatelli, G.; Scettri, A.; D'Auria, M.**

Pyridinium Chlorochromate in the Organic Synthesis: a Convenient Oxidation of Enol-ethers to Esters and Lactones

*Tetrahedron Letters*, **1977**, 3483.

3. **Piancatelli, G.; Scettri, A.; David, G.; D'Auria, M.**

A New Synthesis of 3-Oxo-cyclopentenes

*Tetrahedron*, **1978**, *34*, 2775.

4. **Scettri, A.; Piancatelli, G.; D'Auria, M.; David, G.**

General Route and Mechanism of Rearrangement of the 4-Substituted 5-Hydroxy-3-oxocyclopentenes into 2-Substituted Analogs

*Tetrahedron*, **1979**, *35*, 135.

5. **Piancatelli, G.; Scettri, A.; D'Auria, M.**

Pyridinium Chlorochromate in the Organic Synthesis: a Convenient Oxidation of 5-Bromo-2-furan-derivatives into  $\gamma$ -Hydroxy-butenolides

*Tetrahedron Letters*, **1979**, 1507.

6. **D'Ascoli, R.; D'Auria, M.; Piancatelli, G.; Scettri, A.**

The Synthesis of 2-(2-Furyl) 1,3-Dicarbonyl Compounds

*Tetrahedron*, **1979**, *35*, 2905.

7. **Piancatelli, G.; Scettri, A.; D'Auria M.**

Oxidative Ring Opening of Furan Derivatives to  $\alpha,\beta$ -Unsaturated  $\gamma$ -Dicarbonyl Compounds, Useful Intermediates for 3-Oxocyclopentenes Synthesis

*Tetrahedron*, **1980**, *36*, 661.

8. **D'Auria, M.; Piancatelli, G.; Scettri, A.**

A Mild and Selective Reduction of Enediacarbonyl Compounds

*Synthesis*, **1980**, 245.

9. **D'Auria, M.; Piancatelli, G.; Scettri A.**

A Useful Preparation of 5-Nitro-2-furan Derivatives

*Tetrahedron*, **1980**, *36*, 1877.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

10. **D'Auria, M.; Piancatelli, G.; Scettri, A.**  
Synthesis of 4-Ylidenebutenolides and 4-Oxo-2-enoic Acid Methyl Esters from 5-Methoxy-2-furyl-carbinols  
*Tetrahedron*, **1980**, 36, 3071.
11. **D'Ascoli, R.; D'Auria, M.; De Mico, A.; Piancatelli, G.; Scettri, A.**  
A Rapid and Efficient Route to 4- and 5-Amino-3-oxocyclopentene Derivatives  
*J. Org. Chem.*, **1980**, 45, 4500.
12. **D'Ascoli, R.; D'Auria, M.; Iavarone, C.; Piancatelli, G.; Scettri, A.**  
One-pot Synthesis of Cyclopent-2-enones from Furan Derivatives  
*J. Org. Chem.*, **1980**, 45, 4502.
13. **D'Ascoli, R.; D'Auria, M.; Nucciarelli, L.; Piancatelli, G.; Scettri, A.**  
Pyridinium Dichromate in Organic Synthesis: a Convenient Oxidation of Olefin- Iodine Complexes to  $\alpha$ -Iodo Ketones  
*Tetrahedron Letters*, **1980**, 4521.
14. **Antonioletti, R.; D'Auria, M.; Piancatelli, G.; Scettri, A.**  
Pyridinium Dichromate in Organic Synthesis: a Convenient Oxidation of  $\alpha$ -Ynols-Iodine Complexes to  $\alpha,\beta$ -Unsaturated  $\alpha$ -Iodo-aldehydes  
*Tetrahedron Letters*, **1981**, 1041.
15. **Antonioletti, R.; D'Auria, M.; Piancatelli, G.; Scettri, A.**  
Michael Addition to *trans*-Enedicarbonyl Compounds: a Facile Route to 2,3,4,5-Tetra-substituted Furans  
*J. Chem. Soc. Perkin Trans. I*, **1981**, 2398.
16. **D'Auria, M.; De Mico, A.; Piancatelli, G.; Scettri, A.**  
A Facile Route to 5-Alkyl-2(3H)-furanones by Photoisomerisation of Enedicarbonyl Compounds  
*Tetrahedron*, **1982**, 38, 1661.
17. **Antonioletti, R.; D'Auria, M.; Piancatelli, G.; Scettri, A.**  
Photochemical Synthesis of 2,5-Dialkoxy- and 2,5-Diacetoxy-dihydrofurans from *trans*-Enedicarbonyl Compounds  
*Tetrahedron Letters*, **1982**, 2981.
18. **D'Auria, M.; D'Onofrio, F.; Piancatelli, G.; Scettri, A.**  
Studies on Reactivity of Pyridinium Chlorochromate-Iodine System: an Efficient Method for Converting Enolsilyl Ethers into  $\alpha$ -Iodo Ketones  
*Synth. Commun.*, **1982**, 1127.
19. **Piancatelli, G.; Scettri, A.; D'Auria, M.**  
Pyridinium Chlorochromate: a Versatile Oxidant in Organic Synthesis



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*Synthesis*, **1982**, 245.

20. **Antonioletti, R.; D'Auria, M.; De Mico, A.; Piancatelli, G.; Scettri, A.**  
A Facile Route to Iodohydrins and Epoxides by Oxidation of Olefin-Iodine Complexes with Pyridinium Dichromate  
*Tetrahedron*, **1983**, 39, 1765.
21. **Antonioletti, R.; D'Auria, M.; De Mico, A.; Piancatelli, G.; Scettri, A.**  
The Oxidative C-C Cleavage of Phenyloxiranes by Pyridinium Chlorochromate  
*Synthesis*, **1983**, 890.
22. **Antonioletti, R.; D'Auria, M.; De Mico, A.; Piancatelli, G.; Scettri, A.**  
Pyridinium Chlorochromate in Organic Synthesis. A Convenient Preparation of 4-Oxo-2-alkenethioic S-Esters  
*Synthesis*, **1984**, 280.
23. **Antonioletti, R.; D'Auria, M.; De Mico, A.; Piancatelli, G.; Scettri, A.**  
A New Synthesis of 5-Methylene-2(5H)-furanone Derivatives  
*Tetrahedron*, **1984**, 40, 3808.
24. **Antonioletti, R.; D'Auria, M.; De Mico, A.; Piancatelli, G.; Scettri, A.**  
Photochemical Behaviour of 5-Bromo-2-furyl Ketones: Synthesis of 5-Aryl-2-furyl Ketones  
*Tetrahedron*, **1985**, 41, 3441.
25. **Antonioletti, R.; D'Auria, M.; De Mico, A.; Piancatelli, G.; Scettri, A.**  
Photochemical Synthesis of 3- and 5-Aryl-2-furyl Derivatives  
*J. Chem. Soc. Perkin Trans. I*, **1985**, 1285.
26. **D'Auria, M.; De Mico, A.; D'Onofrio, F.; Scettri, A.**  
Pyridinium Dichromate in Organic Chemistry: a New Synthesis of Enedicycarbonyl Compounds  
*Synthesis*, **1985**, 988.
27. **D'Auria, M.; D'Onofrio, F.**  
The Mechanism of the Photochemical Conversion of 5-Bromo-2-furancarboxyaldehyde into the Corresponding 5-Aryl Derivatives:  
Evidence for Exciplex Formation  
*Gazz. Chim. It.*, **1985**, 115, 595.
28. **D'Auria, M.; D'Onofrio, F.; Piancatelli, G.; Scettri, A.**  
A Convenient Synthesis of 2-Bromo and 3-Bromo-4-hydroxy-2-cyclopent-1-ones  
*Gazz. Chim. It.*, **1986**, 116, 173.
29. **D'Auria, M.; De Mico, A.; D'Onofrio, F.; Piancatelli, G.**  
Photochemical Approach to Naturally Occurring Bithiophenes. Synthesis of a Bithienyl  
Component of *Tagetes erecta*  
*Gazz. Chim. It.*, **1986**, 116, 747.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

30. **Antonioletti, R.; D'Auria, M.; D'Onofrio, F.; Piancatelli, G.; Scettri, A.**  
Photochemical Synthesis of Phenyl-2-thienyl Derivatives  
*J. Chem. Soc. Perkin Trans. I*, **1987**, 1755.
31. **D'Auria, M.; Antonioletti, R.; De Mico, A.; Piancatelli, G.**  
An Improved Synthetic Method for 5-Aryl-2-furancarbaldehyde  
*Heterocycles*, **1986**, 24, 1575.
32. **D'Auria, M.; De Mico, A.; D'Onofrio, F.; Piancatelli, G.**  
Photochemical Synthesis of 5-Ethynyl-5'-(1-propynyl)-2,2'-bithiophene  
*Synth. Commun.*, **1987**, 17, 491.
33. **D'Auria, M.; De Mico, A.; D'Onofrio, F.; Piancatelli, G.**  
Photochemical Synthesis of Bithienyl Derivatives  
*J. Chem. Soc. Perkin Trans. I*, **1987**, 1777.
34. **Castagnino, E.; D'Auria, M.; De Mico, A.; D'Onofrio, F.; Piancatelli, G.**  
Studies on Reactivity of 2-Furyl-phosphonyl Carbinols: Synthesis of 4-Hydroxy-5-phosphonyl-cyclopent-2-en-1-ones  
*J. Chem. Soc. Chem. Comm.*, **1987**, 907.
35. **D'Auria, M.; De Mico, A.; D'Onofrio, F.; Piancatelli, G.**  
Synthesis of Naturally Occurring Bithiophenes: a Photochemical Approach  
*J. Org. Chem.*, **1987**, 52, 5243.
36. **D'Auria, M.; D'Onofrio, F.**  
Natural Bithiophenes as Singlet Oxygen Sensitizers  
*Gazz. Chim. It.*, **1988**, 118, 633.
37. **D'Auria, M.; De Mico, A.; D'Onofrio, F.; Piancatelli, G.**  
Photochemical Synthesis of Thiazolyl-thiophene Derivatives  
*Gazz. Chim. It.*, **1989**, 119, 381.
38. **D'Auria, M.; De Mico, A.; D'Onofrio, F.; Mendola, D.; Piancatelli, G.**  
Photochemical Behaviour of Halogenothiophenes: Synthesis of 5-Arylthiophene-2-carboxylic Esters  
*J. Photochem. Photobiol., A: Chem.*, **1989**, 47, 191.
39. **D'Auria, M.**  
Photochemical Arylation of Furans and Thiophenes  
*Gazz. Chim. It.*, **1989**, 119, 419.
40. **D'Auria, M.; De Mico, A.; D'Onofrio, F.; Piancatelli, G.**  
Synthesis of Thienylacetylene Derivatives from *Berkheya* Species through an Unusual Photochemical Approach



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*Gazz. Chim. It.*, **1989**, 119, 201.

41. **D'Auria, M.; De Mico, A.; D'Onofrio, F.**  
An Unusual Photochemical Reaction of Indene with Furan and Thiophene Derivatives  
*Heterocycles*, **1989**, 29, 1331.
42. **D'Auria, M.; Piancatelli, G.; Ferri, T.**  
Photochemical Reactivity of Halofuran and Halothiophene Derivatives in the Presence of Arylalkenes and Arylalkynes  
*J. Org. Chem.*, **1990**, 55, 4019.
43. **D'Auria, M.; Piancatelli, G.; Vantaggi, A.**  
Photochemical Dimerization in Solution of Methyl 2-Furyl and 2-Thienyl-acrylate and Related Compounds  
*J. Chem. Soc. Perkin Trans. I*, **1990**, 2999.
44. **D'Auria, M.; D'Onofrio, F.; Vantaggi, A.**  
Benzophenone Sensitized Rearrangement of Furylidentetralones  
*Tetrahedron*, **1990**, 46, 7831.
45. **D'Auria, M.; Vantaggi, A.**  
1H-Indenylfuran and Thiophene Derivatives, a New Class of Singlet Oxygen Sensitizers  
*Photochem. Photobiol.*, **1991**, 53, 181.
46. **D'Auria, M.**  
Photochemical Reactivity of Halofuran and Halothiophene Derivatives with Benzimidazole  
*Heterocycles*, **1991**, 32, 1059.
47. **D'Auria, M.**  
Photochemical Synthesis of Diindolylmethanes  
*Tetrahedron*, **1991**, 47, 9225.
48. **D'Auria, M.; Vantaggi, A.**  
Photochemical Dimerization of Methoxy Substituted Cinnamic Acid Methyl Esters  
*Tetrahedron*, **1992**, 48, 2523.
49. **D'Auria, M.; D'Onofrio, F.; Sciarroni, F.**  
Reactivity of Thienyl Phosphonyl Carbinols in Acidic Medium: Synthesis of Aryl- and Alkoxy-thienyl Methan Derivatives  
*Synth. Commun.*, **1992**, 22, 699.
50. **D'Auria, M.**  
Naturally Occurring 5-[(2-Thienyl)ethynyl]thiophene-2-carbaldehyde through a Short Synthesis of Diarylacetylenes  
*Synth. Commun.*, **1992**, 22, 2393.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

51. **D'Auria, M.; Tofani, D.**  
Photochemical Approach to the Synthesis of Naturally Occurring Thienylacetylenes  
*Tetrahedron*, **1992**, *48*, 9315.
52. **D'Auria, M.; D'Annibale, A.; Ferri, T.**  
Photochemical Behaviour of Furylidene Carbonyl Compounds  
*Tetrahedron*, **1992**, *48*, 9323.
53. **D'Auria, M.; D'Onofrio, F.**  
Photochemical Reactivity of Halofuran and Halothiophene Derivatives in the presence of  $\alpha$ -Methylstyrene and Heteroallylic Acetates  
*Gazz. Chim. It.*, **1993**, *123*, 129.
54. **D'Auria, M.; D'Onofrio, F.; Suwinski, J.; Swierczek, K.**  
Synthesis and Photochemical Behaviour of 4-Nitroimidazoles in the presence of Oxygen  
*Tetrahedron*, **1993**, *49*, 3899.
55. **Herrnreiter, M.; Kagan, J.; Chen, X.; Lau, K. Y.; D'Auria, M.; Vantaggi, A.**  
Phototoxicity of (1H-Indenyl)thiophenes  
*Photochem. Photobiol.*, **1993**, *58*, 49.
56. **D'Auria, M.; Piancatelli, G.**  
Stereospecific Epoxidation of 4-Hydroxycyclopent-2-enones  
*Chem. Lett.*, **1993**, 1153.
57. **D'Auria, M.; Volpe, F.**  
Birch Reduction of Bithienyl Alcohols  
*Gazz. Chim. It.*, **1993**, *123*, 527.
58. **D'Auria, M.**  
Photochemical Coupling between Indene and Nitroarenes  
*Tetrahedron Lett.*, **1994**, *35*, 633.
59. **D'Auria, M.**  
Photochemical Reactions of Nitroarenes with Styrene  
*J. Photochem. Photobiol., A: Chem.*, **1994**, *79*, 67
60. **D'Agostini, A.; D'Auria, M.**  
Photochemical Coupling between Halogenoheterocyclic and Heterocyclic Derivatives.  
*J. Chem. Soc. Perkin Trans. I*, **1994**, 1245.
61. **D'Auria, M.; Vantaggi, A.**  
Photochemical Reactivity of 9-Vinyladenine with Diethyl Fumarate



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*J. Heterocyclic Chem.*, **1994**, 31, 375.

62. **D'Auria, M.**  
Photochemical Oxidation of *trans*- $\alpha,\alpha'$ -Dimethylstilbene in the presence of  $\alpha$ -Terthienyl  
*Tetrahedron Lett.*, **1994**, 35, 3151.
63. **D'Auria, M.**  
Reactions of Halogenoheterocyclic Derivatives with Arenes, Arylalkenes, and Arylalkynes  
*Trends in Photochemistry & Photobiology*, **1994**, 3, 1.
64. **D'Auria, M.; D'Onofrio, F.; Piancatelli, G.**  
Regioselectivity in Ring Opening of (5-Methyl-2-furyl)-(5-dimethyl-phosphonomethyl-2-furyl)methane: Synthesis of new Cyclopentenone Derivatives.  
*Gazz. Chim. It.*, **1994**, 124, 125.
65. **D'Auria, M.**  
Photochemical Arylation of 2-Iodo-5-nitrothiophene  
*Gazz. Chim. It.*, **1994**, 124, 195.
66. **Piancatelli, G.; D'Auria, M.; D'Onofrio, F.**  
Synthesis of 1,4-Dicarbonyl Compounds and Cyclopentenones from Furans  
*Synthesis*, **1994**, 867.
67. **D'Auria, M.; Mauriello, G.**  
Synthesis and Photochemical Properties of Nitrothienyl Derivatives  
*Photochem. Photobiol.*, **1994**, 60, 542.
68. **D'Auria, M.**  
Photochemistry of  $\beta$ -Methoxystyrene in the Presence of Nitroarenes. Unusual Products Formation  
*Chem. Lett.*, **1995**, 109.
69. **D'Auria, M.; Mauriello, G.**  
Reevaluation of Benzyltrimethylammonium Dichloriodide, Previously Reported to be a Selective Iodinating Agent  
*Synthesis*, **1995**, 248.
70. **Elisei, F.; Latterini, L.; Aloisi, G. G.; D'Auria, M.**  
Photoinduced Substitution Reactions in Halothiophene Derivatives. Steady State and Laser Flash Photolytic Studies.  
*J. Phys. Chem.*, **1995**, 99, 5365.
71. **D'Auria, M.; Mauriello, G.**





**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

Bis-(trifluoroacetoxy)iodobenzene - Iodine System: An Efficient and Selective Reagent for Iodination of Thiophene Derivatives.  
*Tetrahedron Lett.*, **1995**, 36, 4883.

72. **D'Auria, M.**  
Regioselective Photochemical Diels-Alder Reaction on Thiophene Derivatives  
*Tetrahedron Lett.*, **1995**, 36, 6567.
73. **D'Auria, M.**  
Applications of the Photochemical Reaction of Iodoheterocyclic Derivatives with Aromatic Compounds in the Synthesis of new Singlet Oxygen Sensitizers.  
*J. Photochem. Photobiol., A: Chem.*, **1995**, 91, 187.
74. **D'Auria, M.; Ferri, T.**  
Photocoupling between Haloheterocyclic Derivatives and Arylalkene and Arylalkynes: Instruments to Predict Reactivity.  
*J. Org. Chem.*, **1995**, 60, 8360.
75. **D'Auria, M.; Ferri, T.; Mauriello, G.**  
Photochemical oxidation of alkylbenzenes  
*Gazz. Chim. Ital.* **1996**, 126, 313.
76. **D'Auria, M.**  
Regio- and Stereochemical Control in the Photodimerization of Methyl 3-(2-Furyl)acrylate  
*Heterocycles*, **1996**, 43, 959.
77. **D'Auria, M.**  
Photochemical Reactions Involving Pyrroles - Part I  
*Heterocycles*, **1996**, 43, 1305.
78. **D'Auria, M.**  
Photochemical Reactions Involving Pyrroles - Part II  
*Heterocycles*, **1996**, 43, 1529.
79. **D'Auria, M.; Esposito, V.; Mauriello, G.**  
Photochemical Reactivity of Aromatic and Heteroaromatic Nitroderivatives in the Presence of Arylalkenes  
*Tetrahedron*, **1996**, 52, 14253
80. **D'Auria, M.; Mauriello, G.**  
Photochemical Dichloromethylation of Methylarenes  
*Tetrahedron Letters*, **1996**, 37, 8217.
81. **Crestini, C. ; D'Auria, M.**



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

Photodegradation of lignin: the role of singlet oxygen  
*J. Photochem. Photobiol., A : Chem.*, **1996**, *101*, 69.

82. **D'Auria, M.; De Luca, E.; Esposito, V.; Mauriello, G.; Racioppi, R.**  
Photochemical Synthesis of Dipyrromethane Derivatives  
*Tetrahedron*, **1997**, *53*, 1157.
83. **Crestini, C.; D'Auria, M.**  
Singlet oxygen in the Photodegradation of Lignin Models  
*Tetrahedron*, **1997**, *53*, 7877.
84. **D'Auria M.**  
The Photochemical Isomerization Reactions in Furan, Thiophene, and Pyrrole Derivatives  
*Internet J. Sci.*, **1997**, *4*, 15.
85. **D'Auria, M.; De Luca, E.; Mauriello, G.; Racioppi, R.; Sleiter, G.**  
**Photochemical Substitution of  
Halogenopyrrole Derivatives**  
*J. Chem. Soc., Perkin Trans. I*, **1997**, 2369.
86. **Bonini, C.; Esposito V.; D'Auria, M.; Righi, G.**  
A Study on the Open Chain Model for Transition State Structures in the Nucleophilic  
Addition to  $\beta$ -Substituted Carbonyl Compounds and its Application to the 1,3 Asymmetric  
Induction  
*Tetrahedron*, **1997**, *53*, 13419.
87. **D'Auria, M.**  
Photochemical Behaviour of Halogenoheterocyclic Derivatives. The Alternative between  
Arylation and Dehalogenation Reactions.  
*Heterocycles*, **1997**, *45*, 1775.
88. **D'Auria, M.; Racioppi, R.**  
Photochemical Dimerization in Solution of Arylacrylonitrile Derivatives.  
*Tetrahedron*, **1997**, *53*, 17307.
89. **D'Auria, M; Esposito, V.**  
Allylic Photochemical Oxidation of  $\beta$ -Methylstyrene Derivatives in the presence of 2-Iodo-5-  
nitrothiophene  
*Gazz. Chim. Ital.*, **1997**, *127*, 471.
90. **D'Auria, M.**  
Photochemical Aryl-Aryl Coupling in Furan, Thiophene, and Pyrrole Derivatives  
*Targets in Heterocyclic Systems, Chemistry and Properties*, Volume 1, Ed. by O. A. Attanasi e D.  
Spinelli, Italian Society of Chemistry, **1997**, p. 277.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

91. **D'Auria, M.; De Luca, E.; Mauriello, G.; Racioppi, R.**  
Photochemical Synthesis of 4(5)-Nitro-2-arylimidazoles  
*J. Chem. Soc., Perkin Trans. I*, **1998**, 271.
92. **D'Auria, M.; Racioppi, R.**  
Photochemical Dimerization of Esters of Urocanic Acid  
*J. Photochem. Photobiol., A: Chem.*, **1998**, 112, 145.
93. **Bonini, C.; D'Auria, M.; D'Alessio, L.; Mauriello, G.; Tofani, D.; Viggiano, D.; Zimbardi, F.**  
Singlet Oxygen Degradation of Lignin  
*J. Photochem. Photobiol., A: Chem.*, **1998**, 113, 119.
94. **Ricciardi, G.; Belviso, S.; D'Auria, M.; Lelj, F.**  
Synthesis, Spectro-Electrochemical Properties and Photoreaction with O<sub>2</sub> of Lutetium Bis-ethyltetraazaporphyrin  
*J. Porphyrins Phthalocyanines*, **1998**, 2, 517.
95. **Bonini, C.; D'Auria, M.; Mauriello, G.; Viggiano, D.; Zimbardi, F.**  
**Singlet Oxygen Degradation of Lignin in the Pulp**  
*J. Photochem. Photobiol., A: Chem.*, **1998**, 118, 107.
96. **D'Auria, M.**  
Unified Approach to the Photochemical Isomerization of Five-membered Heteroaromatic Compounds  
*Targets in Heterocyclic Systems, Chemistry and Properties*, Vol. 2, Ed. by O. A. Attanasi e D. Spinelli, Italian Society of Chemistry, **1999**, p. 233.
97. **D'Auria, M.; De Luca, E.; Mauriello, G.; Racioppi, R.**  
A Short Synthesis of a Thienyl Analogue of Undecylprodigiosin  
*Synth. Commun.*, **1999**, 29, 35.
98. **D'Auria, M.; Mauriello, G.; Racioppi, R.**  
An Unusual Oxidation of Thiazol-2-ylmethanol in Hydrolytic Conditions  
*J. Chem. Soc., Perkin Trans. I*, **1999**, 37.
99. **D'Auria, M.; Ferri, T.; Mauriello, G.; Pesce, A.; Racioppi, R.**  
The Photochemical Behaviour of 2-EWG-Substituted Heterocycles in the presence of Alkenes and Alkynes.  
*Tetrahedron*, **1999**, 55, 2013.
100. **D'Auria, M.**



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

Towards a Unitary Description of the Photochemical Isomerization Reactions in Pentaatomic Aromatic Heterocycles: the Case of Furan, Thiophene, Pyrrole, Isoxazole, Imidazole, and Pyrazole Derivatives.

*Heterocycles*, **1999**, *50*, 1115.

101. **Bentivenga G.; Bonini, C.; D'Auria, M.; De Bona, A.; Mauriello, G.**  
Singlet Oxygen Mediated Degradation of Klason Lignin  
*Chemosphere*, **1999**, *39*, 2409.
102. **Bentivenga G.; Bonini, C.; D'Auria, M.; De Bona, A.**  
Singlet oxygen degradation of lignin: a GC-MS study on the residual products of the singlet oxygen degradation of a steam exploded lignin from beech  
*J. Photochem. Photobiol., A: Chem.*, **1999**, *128*, 139.
103. **Scrano, L.; Bufo, S. A.; D'Auria, M.; Emmelin, C.**  
**Photochemical Behaviour of Oxyfluorfen a Diphenyl-ether Herbicide**  
*J. Photochem. Photobiol., A: Chem.*, **1999**, *129*, 65.
104. **Bussotti, L.; D'Auria, M.; Foggi, P.; Lesma, G.; Righini, R.; Silvani, A.**  
The Photochemical Behavior of Colchicone and Thiocolchicone  
*Photochem. Photobiol.*, **2000**, *71*, 29.
105. **D'Auria, M.**  
A New Simple Procedure for the Isomerization of 2-Furylcarbinols to Cyclopentenones  
*Heterocycles*, **2000**, *52*, 185; **2000**, *52*, 1451.
106. **D'Auria, M.**  
Ab Initio Study on the Photochemical Isomerization of Furan Derivatives.  
*J. Org. Chem.*, **2000**, *65*, 2494.
107. **D'Auria, M.; Ferri, R.; Poggi, G.; Mauriello, G.; Racioppi, R.**  
Photochemical Behavior of Iodoheterocyclic Derivatives in the Presence of Electron-Poor Olefins  
*Eur. J. Org. Chem.*, **2000**, 1653.
108. **D'Auria, M.; Racioppi, R.**  
Paternò-Büchi reaction on 5-methyl-2-furylmethanol derivatives  
*Arkivoc*, **2000**, *1(2)*, 133.
109. **D'Auria, M.; Emanuele, L.; Mauriello, G.; Racioppi, R.**  
Photochemical Dimerisation of 2-Vinylfuran and 2-Vinylthiophene Derivatives Bearing Electron-withdrawing Groups  
*J. Photochem. Photobiol., A: Chem.*, **2000**, *134*, 147.
110. **Bentivenga, G.; Bonini, C.; D'Auria, M.; De Bona, A.; Mauriello, G.**



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

Fine Chemicals from singlet-oxygen-mediated degradation of lignin – a GC/MS study at different irradiation times on a steam-exploded lignin

*J. Photochem. Photobiol., A: Chem.*, **2000**, 135, 203.

111. **D'Auria, M.; Racioppi, R.; Romaniello, G.**  
The Paternò-Büchi Reaction on 2-furylmethanols  
*Eur. J. Org. Chem.*, **2000**, 3265.
112. **D'Auria, M.; Distefano, C.; D'Onofrio, F.; Mauriello, G.; Racioppi, R.**  
Photochemical Substitution of polyhalogenothiophene and halogenothiazole Derivatives  
*J. Chem. Soc., Perkin Trans. 1*, **2000**, 3513.
113. **Bonini, C.; D'Auria, M.**  
Photochemical degradation of lignin  
*Research Advances in Photochemistry & Photobiology*, **2000**, 1, 1.
114. **Bonini, C.; D'Auria, M.; Mauriello, G.; Pucciariello, R.; Teghil, R.; Tofani, D.; Viggiani, L.; Viggiano, D.; Zimbardi, F.**  
Graft Copolymers of Lignin from Straw with 1-Ethenylbenzene: Synthesis and Characterization  
*J. Appl. Polym. Sci.*, **2001**, 79, 72.
115. **D'Auria, M.**  
Photochemical Dimerization in Solution of Heterocyclic Substituted Alkenes bearing an Electron Withdrawing Group.  
*Heterocycles*, **2001**, 54, 475.
116. **Bentivenga, G.; D'Auria, M.; De Luca, E.; De Bona, A.; Mauriello, G.**  
The use of SPME-GC-MS in the analysis of flavor of virgin olive oil.  
*Riv. Ital. Sostanze Grasse*, **2001**, 78, 157.
117. **D'Auria, M.**  
Photochemical Isomerization of Pentaatomic Heterocycles  
*Adv. Heterocyclic Chem.*, **2001**, 79, 41
118. **Latterini, L.; Elisei, F.; Aloisi, G. G.; D'Auria, M.**  
Photoinduced substitution reaction in halothiophenes. Quantum-mechanical and photochemical studies on nitro- and cyano-derivatives.  
*Phys. Chem. Chem. Phys.*, **2001**, 3, 2765
119. **D'Auria, M.; Bonini, C.; Emanuele, L.; Ferri, R.**  
Singlet-oxygen mediated degradation of lignin – Isolation of oxidation products from steam-exploded lignin from straw  
*J. Photochem. Photobiol., A: Chem.*, **2002**, 147, 153.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

120. **Scrano, L.; Bufo, S. A.; D'Auria, M.; Meallier, O.; Behechti, A.; Shramm, K. W.**  
Photochemistry and Photoinduced Toxicity of Acifluorfen, a diphenyl-ether herbicide  
*J. Environ. Qual.*, **2002**, *31*, 268-274.
121. **Bonini, C.; D'Auria, M.; Funicello, M.; Romaniello, G.**  
Novel *N*-(2-benzo[*b*]thienyl)iminophosphoranes and their use in the synthesis of  
benzo[*b*]thieno[2,3-*b*]pyridines  
*Tetrahedron*, **2002**, *58*, 3507.
122. **Bonini, C.; D'Auria, M.; Fedeli, P.**  
First controlled asymmetric dihydroxylation of thiophene acrylates  
*Tetrahedron Letters*, **2002**, *43*, 3813.
123. **Bentivenga, G.; D'Auria, M.; De Bona, A.; Mauriello, G.**  
On the flavor of virgin olive oil  
*Riv. Ital. Sostanze Grasse*, **2002**, *78*, 101
124. **D'Auria, M.; Emanuele, L.; Poggi, G.; Racioppi, R.; Romaniello, G.**  
On the stereoselectivity of the Paternò-Büchi reaction between carbonyl compounds and 2-  
furylmethanol derivatives. The case of aliphatic aldehydes and ketones  
*Tetrahedron*, **2002**, *58*, 5045.
125. **D'Auria, M.**  
Ab initio study on the photochemical isomerization of thiophene derivatives  
*J. Photochem. Photobiol., A: Chem.*, **2002**, *149*, 31.
126. **Bonini, C.; Carbone, A.; D'Auria, M.**  
Singlet oxygen mediated degradation of lignin – a kinetic study  
*Photochem. Photobiol. Sci.*, **2002**, *1*, 407.
127. **D'Auria, M.; De Luca, E.; Mauriello, G.**  
A GC-MS analysis of methanol-water extracts of olive oils  
*Riv. Ital. Sostanze Grasse*, **2002**, *79*, 233.
128. **Bonini, C.; D'Auria, M.; Ferri, R.**  
Singlet oxygen mediated degradation of lignin – isolation of oxidation products from steam  
exploded lignin from pine  
*Photochem. Photobiol. Sci.*, **2002**, *1*, 570
129. **D'Auria, M.**  
Ab initio study on the photochemical isomerization of thiazole derivatives  
*Tetrahedron*, **2002**, *58*, 8037.
130. **D'Auria, M.; Emanuele, L.; Esposito, V.; Racioppi, R.**



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

The Photochemical Dimerization of 3-heteroaryl-acrylates  
*Arkivoc*, **2002** (11), 65.

131. **Albanis, T.; Bochicchio, D.; Bufo, S. A.; Cospito, I.; D'Auria, M.; Lekka, M.; Scrano, L.**  
Surface adsorption and photo-reactivity of sulfonylurea herbicides.  
*Intern. J. Environ. Anal. Chem.* **2002**, 82, 561.
132. **Bentivenga, G.; Bonini, C.; D'Auria, M.; De Bona, A.**  
Degradation of steam-exploded lignin from beech by using Fenton's reagent  
*Biomass Bioenergy*, **2003**, 24, 233.
133. **D'Auria, M.; Ferri, R.**  
Frontier orbitals control in the reactivity of singlet oxygen with lignin model compounds. An ab initio study  
*J. Photochem. Photobiol., A: Chem.*, **2003**, 157, 1
134. **D'Auria, M.; Emanuele, L.; Mauriello, G.; Racioppi, R.**  
On the origin of "Goût de Lumière" in champagne  
*J. Photochem. Photobiol., A: Chem.*, **2003**, 158, 21
135. **Bentivenga, G.; D'Auria, M.; Viggiani, F.**  
<sup>1</sup>H NMR characterization of virgin olive oils from Basilicata  
*Riv. Ital. Sostanze Grasse*, **2003**, 80, 171.
136. **D'Auria, M.; Emanuele, L.; Racioppi, R.; Romaniello, G.**  
The Paternò-Büchi reaction on furan derivatives  
*Curr. Org. Chem.*, **2003**, 7, 1443.
137. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
On the Paternò-Büchi reaction of chiral phenylglyoxylate esters with furan derivatives  
*Photochem. Photobiol. Sci.* **2003**, 2, 904.
138. **Bonini, C.; D'Auria, M.; Ferri, R.; Pucciariello, R.; Sabia, A. R.**  
Graft copolymers of lignin with electron poor alkenes  
*J. Appl. Polym. Sci.*, **2003**, 90, 1163.
139. **Bussotti, L.; Cacelli, I.; D'Auria, M.; Foggi, P.; Lesma, G.; Silvani, A.; Villani, V.**  
Photochemical isomerization of colchicine and thiocolchicine  
*J. Phys. Chem. A*, **2003**, 107, 9079.
140. **D'Auria, M.**  
Paternò-Büchi reaction on furan: regio- and stereochemistry  
*Targets in Heterocyclic Systems, Chemistry and Properties*, Volume 7, Ed. by O. A. Attanasi e D. Spinelli, Italian Society of Chemistry, **2003**, p. 157.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

141. **Bufo, S. A.; D'Auria, M.; Scrano, L. Teghil, R.**  
Determination of herbicide residues by laser microprobe mass analysis (Lamma)  
*Int. J. Envir. Anal. Chem.*, **2004**, *84*, 39.
142. **D'Auria, M.; Mauriello, G.; Rana, G. L.**  
Volatile organic compounds from saffron  
*Flav.Fragr. J.*, **2004**, *19*, 17.
143. **D'Auria, M. ; Racioppi, R.**  
The photochemical isomerization of pyrazoles: an ab initio study  
*Lett. Org. Chem.*, **2004**, *1*, 12
144. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Regio- and stereoselectivity in the Paternò-Büchi reaction of furan derivatives.  
*J. Photochem. Photobiol., A: Chem.*, **2004**, *163*, 103
145. **Buscemi, S.; D'Auria, M.; Pace, A.; Pibiri, I.; Vivona, N.**  
Theoretical study of photoinduced ring-isomerization in the 1,2,4-oxadiazole series.  
*Tetrahedron*, **2004**, *60*, 3243.
146. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Diastereoselectivity in the Paternò-Büchi reaction on furan derivatives  
*Tetrahedron Lett.*, **2004**, *45*, 3877.
147. **Bentivenga, G.; D'Auria, M.; Mauriello, G.; Racioppi, R.; Viggiani, L.**  
Characterization of virgin olive oils from Basilicata by using <sup>1</sup>H-NMR and SPME-GC-MS  
*Riv. Ital. Sostanze Grasse*, **2004**, *81*, 86.
148. **D'Auria, M.; Racioppi, R.**  
The photodimerisation of coumarin  
*J. Photochem. Photobiol., A: Chem.*, **2004**, *163*, 557.
149. **Pucciariello, R.; Villani, V.; Bonini, C.; D'Auria, M.; Vetere, T.**  
**Physical properties of straw lignin-based polymer blends**  
*Polymer*, **2004**, *45*, 4159.
150. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Regio- and diastereoselectivity in the Paternò-Büchi reaction on furan derivatives  
*The Spectrum*, **2004**, *17*, 22
151. **Mauriello, G.; Marino, R.; D'Auria, M.; Cerone, G.; Rana, G. L.**  
Determination of volatile organic compounds from truffles via SPME-GC-MS  
*J. Chromatogr. Sci.*, **2004**, *42*, 299.





**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

152. **Bonini, C.; D'Auria, M.**  
Degradation and recovery of fine chemical through singlet oxygen treatment of lignin  
*Ind. Crops Prod.*, **2004**, *20*, 243
153. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
The stereoselectivity of the Paternò-Büchi reaction between tertiary 2-furylmethanol derivatives and aromatic carbonyl compounds. On the nature of the hydroxy directing effect.  
*Photochem. Photobiol. Sci.*, **2004**, *3*, 927.
154. **Bentivenga, G.; D'Auria, M.; Fedeli, P.; Mauriello, G.; Racioppi, R.**  
SPME-GC-MS analysis of volatile organic compounds in honey from Basilicata. Evidence for the presence of pollutants from anthropogenic activities  
*Int. J. Food Sci. Technol.*, **2004**, *39*, 1079.
155. **D'Auria, M.; Mauriello, G.; Racioppi, R.**  
SPME-GC-MS analysis of horseradish (*Armoracia rusticana*)  
*Ital. J. Food Sci.* **2004**, *16*, 487
156. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Stereoselectivity in the Paternò-Büchi reaction on chiral allylic alcohol, for a discussion of the hydroxy directing effect  
*Lett. Org. Chem.*, **2005**, *2*, 132.
157. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
1,2-Cycloaddition reaction of carbonyl compounds and pentaatomic heterocyclic compounds  
*Advances in Photochemistry*, Ed. By Neckers, D. C.; Jenks, W. S.; Wolff, T., John Wiley & Sons, Hoboken, NJ, Vol. 28, **2005**, p. 81
158. **D'Auria, M.; Mauriello, G.; Marino, R.; Racioppi, R.**  
Composition of volatile fraction from *Thymus*, *Origanum*, *Lavandula* and *Acinos* species  
*J. Essent. Oil Bearing Plants* **2005**, *8*, 36.
159. **D'Auria, M.**  
Electrophilic substitutions and HOMOs in azines and purines  
*Tetrahedron Letters*, **2005**, *46*, 6333.
160. **Bonini, C.; D'Auria, M.; Emanuele, L.; Ferri, R.; Pucciariello, R.; Sabia, A. R.**  
Polyurethanes and polyesters from lignin  
*J. Appl. Polym. Sci.* **2005**, *98*, 1451.
161. **D'Auria, M.**  
Electrophilic substitution in azines



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*Lett. Org. Chem.* **2005**, 2, 659.

162. **D'Auria, M.**  
The concept of aromaticity in heterocyclic chemistry.  
*Trends in Heterocyclic Chemistry* **2005**, 10, 139.
163. **D'Auria, M.; Mauriello, G.; Racioppi, R.; Rana, G. L.**  
Use of SPME-GC-MS in the study of time evolution of the constituents of saffron aroma: modifications of the composition during storage  
*J. Chromatogr. Sci.* **2006**, 44, 18
164. **Scrano, L.; Bufo, S. A.; D'Auria, M.; Chovelon, J. –M.**  
Photochemical properties and degradation by-products of triasulphuron and thifensulphuron-methyl  
*Intern. J. Environ. Anal. Chem.* **2006**, 86, 253.
164. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Regio- and stereoselectivity in the Paternò-Büchi reaction between 2,3-dihydrofuran and furan with benzaldehyde  
*Lett. Org. Chem.* **2006**, 3, 244.
165. **Celano, G.; D'Auria, M.; Xiloyannis, C.; Mauriello, G. ; Baldassarre, M.**  
Composition and seasonal variation of soluble cuticular waxes in *Actinidia deliciosa* leaves  
*Nat. Prod. Res.* **2006**, 20, 701.
166. **D'Auria, M.; Emanuele, L.; Pace, V.; Racioppi, R.**  
Diastereoselective Paternò-Büchi reaction on furan derivatives – reaction with asymmetric ketones  
*Lett. Org. Chem.* **2006**, 3, 350.
167. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Regio- and stereoselectivity in the Paternò-Büchi reaction on furan derivatives  
*Int. J. Photoenergy* **2006**, 2006, ID 84645, pp 1-11
168. **Bentivenga, G.; D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Oxidative degradation of olive oil mill waste water  
*Riv. Ital. Sostanze Grasse* **2006**, 82, 159.
169. **Bonini, C.; D'Auria, M.**  
New materials from lignin  
*Biomass and Bioenergy: New Research*, Ed. by M. D. Brenes, Nova Science Publisher Inc., Hauppauge, NY, 2006, p. 141-168.
170. **Bonini, C.; D'Auria, M.**  
New materials from lignin



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*Progress in Biomass and Bioenergy Research*, Ed. by S. F. Wammer, Nova Science Publisher Inc., Hauppauge, NY, 2006, p. 177-204

171. **Amati, M.; Bonini, C.; D'Auria, M.; Funicello, M.; Lelj, F.; Racioppi, R.**  
Synthesis of heteroaryl imines: theoretical and experimental approach to the determination of the configuration of C=N double bond  
*J. Org. Chem.* **2006**, *71*, 7165.
172. **Capozzo, M.; D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Synthesis and photochemical reactivity towards the Paternò-Büchi reaction of benzo[*b*]furan derivatives: their use in the preparation of 3-benzofurylmethanol derivatives.  
*J. Photochem. Photobiol., A: Chem.* **2007**, *185*, 38.
173. **Cacelli, I.; D'Auria, M.; Villani, V.**  
Theoretical study of the photochemical isomerization of colchicine.  
*J. Chem. Theory Comput.* **2007**, *3*, 649.
174. **Liguori, A.; D'Auria, M.; Emanuele, L.; Scrano, L.; Lelario, F.; Bufo, S. A.**  
Reactivity of rimsulfuron in newly formed inclusion combinations by using cyclodextrin and zeolite  
*Int. J. Environ. Anal. Chem.* **2007**, *87*, 1043
175. **Bonini, C.; D'Auria, M.; Di Maggio, P. Ferri, R.**  
Characterization and degradation of lignin from steam explosion of pine and corn stalk lignin: the role of superoxide ion and ozone.  
*Ind. Crops Prod.* **2008**, *27*, 182
176. **D'Auria, M.; Emanuele, L.; Racioppi, R.; Valente, A.**  
Paternò-Büchi reaction between aromatic carbonyl compounds and 1-(3-furyl)alkanols  
*Photochem. Photobiol. Sci.* **2008**, *7*, 98.
177. **D'Auria, M.; Racioppi, R.; Velluzzi, V.**  
A comparison of results obtained using liquid injection and headspace solid-phase microextraction for crude oil analysis by GC with mass spectrometer detection  
*J. Chromatogr. Sci.* **2008**, *46*, 332.
178. **D'Auria, M.; Racioppi, R.; Velluzzi, V.**  
Photodegradation of crude oil: liquid injection and headspace solid-phase microextraction for crude oil analysis by gas chromatography with mass spectrometry detector  
*J. Chromatogr. Sci.* **2008**, *46*, 339.
179. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Stereoselectivity in the reaction of chiral phenylglyoxylate esters with furan within zeolites and cyclodextrin.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*Lett. Org. Chem.* **2008**, 5, 249.

180. **Pucciariello, R.; Bonini, C.; D'Auria, M.; Villani, V.; Gianmarino, G.; Gorrasi, G.**  
Polymer blends of steam-explosion lignin and poly( $\epsilon$ -caprolactone) by high-energy ball milling  
*J. Appl. Polym. Sci.* **2008**, 109, 309.
181. **D'Auria, M.; Emanuele, L.; Racioppi, R.; Velluzzi, V.**  
Synchronous fluorescence spectroscopy and gas chromatography to determine the effect of UV irradiation on crude oil  
*J. Photochem. Photobiol., A: Chem.* **2008**, 198, 156
182. **Cacelli, I.; D'Auria, M.; Villani, V.**  
Why thiocolchicine does not undergo photochemical isomerization: a theoretical study  
*Chem. Phys. Lett.* **2008**, 459, 167.
183. **Attanasi, O. A.; D'Auria, M.; Emanuele, L.; Favi, G.; Filippone, P.; Mantellini, F.; Pucciariello, R.; Racioppi, R.**  
Synthesis of new polyazines by 1,4 photochemical or anionic polymerization of 1,2-diaza-1,3-butadienes.  
*Eur. Polymer J.* **2008**, 44, 2545.
184. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Photochemical degradation of hyperforin  
*Lett. Org. Chem.* **2008**, 5, 583.
185. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
2+2 Cycloaddition on furan derivatives  
In *Photochemistry Research Progress*, ed. by Sanchez, A.; Gutierrez, S. J.. Nova Science Publishers Inc., Hauppauge, NY, **2008**, pp. 373-438.
186. **Celano, G.; Minnocci, A.; Sebastiani, L.; D'Auria, M.; Xiloyannis C.**  
Changes in the structure of the skin of kiwifruit in relation to water  
*J. Horticult. Sci. Biotechnol.* **2009**, 84, 41
187. **Lupattelli, P.; D'Auria, M.; Di Blasio, N.; Lenti, F.**  
A novel approach to combretastatins: from *trans*-epoxide to CA-4 and its dioxolane derivatives.  
*Eur. J. Org. Chem.* **2009**, 141.
188. **D'Auria, M.; Racioppi, R.; Viggiani, L.; Zanirato, P.**  
Photochemical reactivity of 2-azido-1,3-thiazole and 2-azido-1,3-benzothiazole: a procedure for the aziridination of enol ethers  
*Eur. J. Org. Chem.* **2009**, 932.
189. **D'Auria, M.**



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

Synthesis in organic chemistry by means of light. The contribution of Paternò to the organic photochemistry

In Paternò, E.; *Synthesis in organic chemistry by means of light – 1909: a crucial year for the development of the organic photochemistry*, ed by D'Auria, M.. Società Chimica Italiana, **2009**, 15.

190. **D'Auria, M.; Racioppi, R.**  
On the photoisomerization of thiophene and thiazole derivatives.  
*Heterocycles* **2009**, 78, 737.
191. **D'Auria, M.; Emanuele, L.; Racioppi, R.; Velluzzi, V.**  
Photochemical degradation of crude oil: comparison between direct irradiation, photocatalysis, and photocatalysis on zeolite.  
*J. Hazard. Mater.* **2009**, 164, 32
192. **Mauriello, G.; Capece, A.; D'Auria, M.; Garde-Cerdán, T.; Romano, P.**  
SPME-GC method as a tool to differentiate VOC profiles in *Saccharomyces cerevisiae* wine yeasts.  
*Food Microbiol.* **2009**, 26, 246
193. **D'Auria, M.; Emanuele, L.; Racioppi, R.; Velluzzi, V.**  
Photodegradation of crude oil on solid support  
*J. Chromatograph. Sci.* **2009**, 47, 263.
194. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
Ozone in the degradation of phenols and xenobiotics  
In *Ozone depletion, Chemistry and Impacts*, Bakker, S. H. (Ed.), Nova Publishers, New York, NY, 2009, p. 97
195. **D'Auria, M.; Racioppi, R.**  
Concepts of stereoselective photochemistry and a case study: the Paternò-Büchi reaction  
*Curr. Org. Chem.* **2009**, 13, 939.
196. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
The effect of heat and light on the composition of some volatile compounds in wine  
*Food Chem.* **2009**, 117, 9.
197. **D'Auria, M.; Racioppi, R.**  
Stereoselectivity on organic photochemistry  
In *Seminars in Organic Synthesis, XXXIV "A. Corbella" Summer School*, Società Chimica Italiana, 2009, p. 179.
198. **Cellamare, L.; D'Auria, M.; Emanuele, L.; Racioppi, R.**



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

The effect of light on the composition of some volatile compounds in wine: an HS-SPME-GC-MS study

*Int. J. Food Sci. Technol.* **2009**, *44*, 2377.

199. **D'Auria, M.**  
Maria Bakunin e i primi studi in fotochimica in Italia  
*Rendiconti dell'Accademia Nazionale delle Scienze detta dei XL, Memorie di Scienze Fisiche e Naturali Serie V*, **2009**, *33*, Parte 2, Tomo 2, 161.
200. **D'Auria, M.; Racioppi, R.; Attanasi, O. A.; Mantellini, F.**  
Unusual [4+2]-cycloaddition reaction between electron-poor 1,2-diaza-1,3-dienes and electron-poor alkenes: useful entry to novel tetrahydropyridazines.  
*Synlett*, **2010**, 1363.
201. **Amati, M.; Belviso, S.; D'Auria, M.; Lelj, F.; Racioppi, R.; Viggiani, L.**  
Tandem photoarylation-photoisomerization of halothiazoles: synthesis, photophysical and singlet oxygen activation properties of ethyl 2-arylthiazole-5-carboxylates  
*Eur. J. Org. Chem.* **2010**, 3416.
202. **D'Auria, M.; Racioppi, R.**  
A DFT study of 1,4-biradical intermediates involved in stereoselective Paternò-Büchi reactions.  
*Eur. J. Org. Chem.* **2010**, 3831.
203. **D'Auria, M.; Racioppi, R.; Viggiani, L.**  
Paternò-Büchi reaction between furan and heterocyclic aldehydes: oxetane formation vs. metathesis.  
*Photochem. Photobiol. Sci.* **2010**, *9*, 1134.
204. **Pucciariello, R.; D'Auria, M.; Villani, V.; Giammarino, G.; Gorrasi, G.; Shulga, G.**  
Lignin/Poly( $\epsilon$ -caprolactone) blends with tuneable mechanical properties prepared by high Energy ball-milling.  
*J. Polym. Env.* **2010**, *18*, 326.
205. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
A FT-ICR MS study of lignin: determination of an unusual structural repetitive unit in steam exploded lignin from wheat straw.  
*Lett. Org. Chem.* **2011**, *8*, 436-446.
206. **Calascibetta, F.; D'Auria, M.**  
Bakunin, Paternò and Coworkers in the Development of Organic Photochemistry in Italy  
*EPA Newsletter*, **2011**, *81*, 59-82.
207. **D'Auria, M.**  
Photochemical and photophysical behavior of thiophene



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*Adv. Heterocycl. Chem.* **2011**, 104, 127-390.

208. **D'Auria, M.**  
The development of photochemistry in Italy after the First World War  
*Rendiconti dell'Accademia Nazionale delle Scienze detta dei XL, Memorie di Scienze Fisiche e Naturali, Serie V, Vol. 35, Parte II, Tomo II*, **2011**, 175-185.
209. **D'Auria, M.; Emanuele, L.; Racioppi, R.**  
FT-ICR-MS analysis of lignin  
*Nat. Prod. Res.* **2012**, 26, 1368
210. **D'Annibale, A.; D'Auria, M.; Mancini, G.; Pace, A. D.; Racioppi, R.**  
Regioselective formation of silylated cyclobutenes by the photochemical [2+2] cycloaddition of 2(5*H*)-furanones to trialkylsilylacetylenes  
*Eur. J. Org. Chem.* **2012**, 785-791.
211. **D'Auria, M.**  
Paternò-Büchi Reaction  
*CRC Handbook of Organic Photochemistry and Photobiology, Third Edition* (Ed. by A. Griesbeck, M. Oelgemöller, F. Ghetti), CRC Press, 2012, pp. 653-681.
212. **D'Auria, M.; Frenna, V.; Marullo, S.; Racioppi, R.; Spinelli, D.; Viggiani, L.**  
Photochemical isomerization of aryl hydrazones of 1,2,4-oxadiazole derivatives into the corresponding triazoles.  
*Photochem. Photobiol. Sci.* **2012**, 11, 1383-1388.
213. **D'Auria, M.; Racioppi, R.**  
The Effect of Bacteria Quality, Thermal and Photochemical Treatment on the Composition of Volatile Organic Compounds in Wine  
In *Wine: Types, Production and Health*, Ed. A. S. Peeters, Nova Publisher Co. Ltd. New York, NY, 2012, pp. 335-356.
214. **D'Auria, M.**  
Regio- and stereochemistry of the [2+2]-cycloaddition reaction between enones and alkenes. A DFT study.  
*Tetrahedron* **2012**, 68, 8699-8703.
215. **D'Auria, M.; Rana, G. L.; Racioppi, R.; Laurita, A.**  
Studies on volatile organic compounds of *Tuber borchii* and *T. asa-foetida*  
*J. Chromatogr. Sci.* **2012**, 50, 775-778.
216. **D'Auria, M.; Racioppi, R.**  
Regio- and stereoselective processes in the photochemistry of heterocyclic compounds  
*EPA Newsletter* **2012**, 83, 38-41.



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

217. **D'Auria, M.; Racioppi, R.; Rana, G. L.**  
Volatile organic compounds of *Schenella pityophilus*  
*Nat. Prod. Res.* **2013**, *27*, 41-44.
218. **Todaro, L.; Dichicco, P.; Moretti, N.; D'Auria, M.**  
Effect of combined steam and heat treatments on extractives and lignin in sapwood and heartwood of Turkey oak (*Quercus cerris* L.) wood  
*Bioresources* **2013**, *8*, 1718-1730.
219. **D'Annibale, A.; D'Auria, M.; Prati, F.; Romagnoli, C.; Stoia, S.; Racioppi, R.; Viggiani, L.**  
Paternò-Büchi reaction versus hydrogen abstraction in the photochemical reactivity of alkenyl boronates with benzophenone.  
*Tetrahedron* **2013**, *69*, 3782-3795.
220. **D'Auria, M.**  
A new proposal for the estimation of the aromatic character.  
*Lett. Org. Chem.* **2013**, *10*, 277-282.
221. **D'Auria, M.; Guarnaccio, A.; Racioppi, R.; Santagata, A.; Teghil, R.**  
Synthetic approach to and characterization of a fullerene-DTBT-fullerene triad.  
*Synlett* **2013**, *24*, 943-946.
222. **Attanasi, O. A.; Bianchi, L.; D'Auria, M.; Mantellini, F.; Racioppi, R.**  
Novel tetrahydropyridazines by unusual aza-Diels-Alder reaction of electron-poor 1,2-diaza-1,3-dienes with electron-poor alkenes under solvent free conditions.  
*Curr. Org. Synth.* **2013**, *10*, 631-639.
223. **D'Auria, M.**  
On a dispute between Ciamician and Paternò  
*EPA Newsletter* **2013**, *84*, 106-109.
224. **D'Auria, M.; Racioppi, R.**  
Oxetane synthesis through the Paternò-Büchi reaction  
*Molecules* **2013**, *18*, 11384-11428.
225. **D'Auria, M.**  
At the origin of photochemistry. The photochemical behaviour of santonin. Some documents in this field.  
*EPA Newsletter*, **2013**, *85*, 79-86.
226. **Attanasi, O. A.; Bianchi, L.; D'Auria, M.; Favi, G.; Mantellini, F.; Racioppi, R.**  
Aza-Diels-Alder reaction between 1,2-diaza-1,3-dienes and  $\beta$ -aryl- $\alpha,\beta$ -unsaturated carbonyl compounds. Easy one-pot entry to 2'-oxoimidazo[1',5'-f]tetrahydropyridazine





**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*Curr. Org. Synth.* **2013**, *10*, 951-960.

227. **D'Auria, M.; Masini, N.**  
L'opera scientifica di Francesco Mauro  
*Rendiconti dell'Accademia Nazionale delle Scienze detta dei XL, Memorie di Scienze Fisiche e Naturali, Serie V*, **2013**, *37*, p. II, t. II, 59-70.
228. **D'Auria, M.**  
A new index for the estimation of the aromatic character - II  
*Lett. Org. Chem.* **2014**, *11*, 250-258
229. **D'Auria, M.**  
The Paternò-Büchi reaction  
in *Comprehensive Organic Synthesis, 2nd Edition*, Molander, G. A.; Knochel, P. (Eds.), Vol. 5, Elsevier, Oxford, 2014, pp. 159-199.
230. **Altieri, G.; Di Renzo, G. C.; Genovese, F.; Tauriello, A.; D'Auria, M.; Racioppi, R.; Viggiani, L.**  
Olive oil quality improvement using a natural sedimentation lant at industrial scale.  
*Biosystems Engineering* **2014**, *122*, 99-114.
231. **Acquaviva, V.; D'Auria, M.; Racioppi, R.**  
Changes in aliphatic ester composition in white wines during exposition to light. An HS-SPME-GC-MS study.  
*J. Wine Res.* **2014**, *25*, 63-74.
232. **D'Auria, M.**  
Francesco Mauro, scienziato  
In *Francesco Mauro - un chimico lucano*, D'Auria, M.; Colella, C.; Masini, N. (Eds), Edizioni Scientifiche Italiane, Napoli, 2014, pp 123-135 ISBN 978-88-495-2778-0
233. **D'Auria, M.**  
La chimica del molibdeno oggi - i poliossimetallati  
In *Francesco Mauro - un chimico lucano*, D'Auria, M.; Colella, C.; Masini, N. (Eds), Edizioni Scientifiche Italiane, Napoli, 2014, pp 137-148 ISBN 978-88-495-2778-0
234. **D'Auria, M.**  
At the origin of photochemistry. The photochemical behavior of santonin. Some considerations on the published documents.  
*EPA Newsletter* **2014**, *86*, 76-80
235. **D'Auria, M.**  
Italian photochemistry meeting 2013



**UNIVERSITA' DEGLI STUDI DELLA BASILICATA**  
**DIPARTIMENTO DI SCIENZE**

*EPA Newsletter* 2014, 86, 102-106

---

**ORARIO E SEDE DI RICEVIMENTO**

**Lunedì 15-18, martedì 15-18, mercoledì 10-12**  
**studio presso Dipartimento**

---

**INDIRIZZO EMAIL:**

**maurizio.dauria@unibas.it**

---

**RECAPITO TELEFONICO:**

**0971 205480**

**3204371120**

---