

# CURRICULUM VITAE

FORMATO EUROPEO/EUROPEAN FORMAT

## PERSONAL INFORMATION

Name, Surname	Sabato D'Auria
Address	Department of Biology, Agriculture and Food Science (DISBA) - CNR
House number, street name, postcode, city, country	Piazzale Aldo Moro, 7 00165 Rome, Italy
E-mail	<a href="mailto:sabato.dauria@cnr.it">sabato.dauria@cnr.it</a>
Nationality	Italy

## WORK EXPERIENCE

N. MATRICOLA 4860  
QUALIFICA 01/02/2021 - DIRECTOR - DEPARTMENT OF BIOLOGY, AGRICULTURE AND FOOD SCIENCE (DISBA) – CNR, ROME, ITALY;

01/07/2020 – 31/01/2021  
Director of the Institute of Food Science, ISA-CNR, Avellino, Italy;

01/10/2018 – 30/06/2020  
Acting Director of the Institute of Food Science, ISA-CNR, Avellino;

01/10/2014 – 30/09/2018  
Director of the Institute of Food Science, ISA-CNR, Avellino, Italy;

01/01/2010 - today  
Director of Research at National Research Council (CNR), Italy (on-leave);

31/05/2014- today  
Professor associated to the Centre INRS - Institut Armand-Frappier, Laval, Quebec, Canada;

## EDUCATION AND TRAINING

Dates	1993
Name and type of organisation providing education and training	<i>University of Naples "Federico II", Italy.</i>
Title of qualification awarded	<i>Specialization in General Pathology</i>
Dates	1989
Name and type of organisation providing education and training	<i>University of Rome "La Sapienza", Italy;</i>
Title of qualification awarded	<i>Specialization in Medical Genetics</i>
Dates	1985
Name and type of organisation providing education and training	<i>University of Napoli "Federico II", Italy;</i>
Title of qualification awarded	<i>Dr. in Biology</i>

## **Scientific Carrier**

- 2020 – Coordinator of the National PhD in Artificial Intelligence (Decree CNR President N. 98 08-10-2020);
- 2010-today. Director of Research at National Research Council, Italy. (on-leave)
- 2001- 2009. Senior Scientist at National Research Council, Italy.
- 2001- today. Head of the Laboratory for Molecular Sensing, CNR, Italy.
- 2010- 2014. Invitee Professor, Centre INRS - Institut Armand-Frappier, Laval, Quebec, Canada.
- 2000-2001. Faculty Member, Visiting Associate Professor at the University of Maryland at Baltimore, Center for Fluorescence Spectroscopy, Baltimore, MD, USA.
- 1997-1999. Research Associate at the University of Maryland at Baltimore, Center for Fluorescence Spectroscopy, Baltimore, MD, USA.

## **Professional Achievements**

### *a) Scientific Achievements*

*2020 – Member of the Working Group “Creativity, Design, Made in Italy” in the frame of the Research National Program (PNR) 2021-2027 of the Ministry of University & Research of Italy;*

*2020 - Expert evaluator of Italian Ministry of University & Research (MUR) for FISIR Proposals (Panel Life Science), Italy;*

2016 - Expert evaluator of National Research Council for proposal evaluations in the frame of the Agreement between Regione Lombardia and CNR, Italy;

2015-2019 - Member of the Board Directors BioTekNet S.c.p.a, Naples, Italy;

2015-2020 - Expert evaluator of National Research Council (CNR), Italy for proposals in the frame of “Funds for a Sustainable Development” Italian Ministry of economic Development (MISE);

2015-2016 - Member of the Board Directors MEDEA Scarl, Avellino, Italy (resigned on 2016);

2014-2018 - Member of the scientific board of the National Cluster Project “Smart & Safe”;

2014 - Habilitation to the position of Full Professor of Biochemistry (MIUR);

2014 - Habilitation to the position of Director of the Institute of Protein Biochemistry CNR, Napoli, Italy (ternato);

2013-2018 - Panel member of the European Commission for proposal evaluation (H2020-MSCA-IF-2018-Chemistry);

2013 - Habilitation to the position of Director of the Institute for Study of Macromolecules, Milan, Italy, (ternato);

2013 - Governor Board Member of the Institute of the Protein Biochemistry, CNR, Napoli, Italy;

2012 - MIUR Expert for “Industrial Research in Italy” (Law N. 30/Ric. 2/2/2012);

2012 - Scientific Consultant of the Regione Lombardia, Italy;

2010-2016 - Invitee Professor at the Centre INRS - Institut Armand-Frappier, Laval, Quebec, Canada;

2010 - Scientific Consultant of “Granarolo Group”;

2007-2008 – Member of the Working Group of CNR Life Sciences Department for intellectual property protection and technology transfer strategies;

2006-2015 - Principal Investigator of the CNR Project “Advanced Bio-Chips for food safety and health” (Commessa);

2006 - Scientific Consultant of Vicam - WATERS – MA, USA;

2004 - Scientific Consultant of the SME “Neutron Spa”, Italy;

1998 - Visiting scientist at the University of Negev, Beer-Sheba, Israel (CNR-MOSA project);

#### b) Academic *Achievements*

2017 - Member of Examination Board for PhD Program in *Science XXIX* series, University of Basilicata, Potenza, Italy;

2017 - Member of Examination Board for PhD Program in Biochemical Engineering at Politecnico of Torino, Italy;

2017 - Member of Examination Board for Program in Information Technology of the Politecnico of Milan, Italy;

2016 - Committee Member for evaluation of PhD student admission at University of Basilicata, Italy;

2015 - Member of the PhD School “Innovation & management of food with high healthy value”, University of Foggia, Italy;

2015 - Contract Professor at the “Politecnico” University of Turin, Italy for the Course of “Industrial Biochemistry” (Resigned);

2011 - Contract Professor at Faculty of Biotechnology, University of Naples Federico II;

2006 - Course Lecturer at University of North Texas, Fort Worth, TX, USA;

1998 - Contract Professor at Specialization School in Clinical Biochemistry, University of Perugia, Italy;

1997 - Contract Professor at Faculty of Pharmacy, University of Perugia, Italy;

#### **Research Projects of which he has been responsible**

##### International Projects

1) Principal Investigator CNR - **European Program Horizon 2020** -FNR-2020-2  
Consumer-driven demands to reframe farming systems -  
“CODE R-FARM” – (2021-2025)

2) Principal Investigator CNR - **European Program Horizon 2020** - Ultra-compact, low-cost  
plasmo-photonic bimodal multiplexing sensor platforms as part of a holistic solution for food  
quality monitoring  
“GRACED” – (2021-2025)

3) Principal Investigator CNR - **ENI CBC MED- European Commission** - Transborder Key  
Enabling Technologies and Living Labs for the Dairy value chain  
“TRANSDAIRY” - (2020-2024)

4) - Principal Investigator ISA-CNR – **European Program Horizon 2020** –Quantitative detection of  
bacterial endotoxin by novel nano/technological approaches - Grant agreement N. 812661  
“ENDONANO” – (2019 - 2022)

5) - Principal Investigator CNR **European Program Horizon 2020** – Grant N 771649  
“SWINOSTICS” (2017-2020);

6) - Principal Investigator CNR European Program Horizon 2020 – Grant N 723211 “SAFE STRIP” (2017-2020);

7) - Principal Investigator CNR European Program Horizon 2020 Grant N. 731778 “WATERSPY” (2016-2020);

8) - Principal Investigator CNR European Program FP7 Project Grant N 614088 “MARIABOX” (2014-2018);

9) - Principal Investigator CNR European Program FP7 Grant N 242387 “CUSTOM” “Italy/Finland/Spain/France” for biosensors for drug precursors; (2009-2013);

10) - Principal Investigator CNR European Defense Agency (EDA) “NANOCAP” Grant N A-1084-RT-GC “Italy/Spain/Greece/France” for biosensors for TNT detection (2010-2013);

11) - Principal Investigator CNR European Defense Agency (EDA) “BIOTYPE” Grant N A-1152-RT-GP “Italy/Spain/Greece/France/Germany” for biosensors for dangerous agents detection; (2013-2015);

12) - Coordinator (Supervisor) of INTAS European Project Grant N 06-1000014-5586 “Italy-Russia” Young fellowship for development of a new biosensor for diabetic patients; (2006-2008)

13) - Coordinator of NATO European project N. CBP.CLG.982437 “Italy–Bulgaria–Czech Republic” for development of new sensing technologies for homeland security (2005-2007);

14) - Principal Investigator CNR MAE Italian Ministry for Foreign Affairs research project with University of Vienna, Austria for the characterization of new enzymes for the sugar enzymatic synthesis (1999-2001);

15) - Principal Investigator CNR of the research project between CNR – South Korea Kosef for a new FRET biosensor for celiac disease; (2004-2005)

16) - Principal Investigator Grant N 5P41RR008119-14, Glucose sensing application to contact lenses, University of Maryland, 2006;

17) - Principal Investigator Grant N 5P41RR008119-14 Effect of high hydrostatic pressure on enzyme, University of Maryland, 2006;

18) - Principal Investigator Grant N 5P41RR008119-14, Fluorescence of thermophilic enzyme, University of Maryland, 2006;

19) - Principal Investigator Grant N 5P41RR008119-13, Glucose sensing application To contact lens, University of Maryland 2005;

20) - Principal Investigator Grant N 5P41RR008119-13 Effect of high hydrostatic pressure on enzyme, University of Maryland Baltimore, 2005;

21) - Principal Investigator Grant N 5P41RR008119-13, Fluorescence of thermophilic enzyme University of Maryland, 2005;

22) - Principal Investigator N 5P41RR008119-12 Glucose sensing application to contact lenses, University of Maryland Baltimore 2004

23) - Principal Investigator N 5P41RR008119-12 Effect of high hydrostatic pressure on enzyme University of Maryland, 2004;

24) - Principal Investigator N. 5P41RR008119-12 Fluorescence of thermophilic enzyme, University of Maryland, 2004.

#### National Projects

25) – Scientific Responsible of the research unit - Understanding and targeting the extracellular NADome in inflammation – Programmi di Ricerca Scientifica di Rilevante Interesse Nazionale PRIN 2019-2021

26) - Principal Investigator CNR Project “PISA” Fondo per la Crescita Sostenibile – Bando “Progetti di ricerca e sviluppo negli ambiti tecnologici identificati dal Programma Quadro Horizon 2020” (2016-2019)

27) - Coordinator of the CNR National Project “Premiale of the Department of Biomedicine “Advanced Bio/sensing approaches for diagnosis and follow-up of celiac disease” (2014-2016);

28) - Principal Investigator CNR of a WP in the frame of the Flagship Project “Interomics”; (2015-2017);

29) - Principal Investigator IBP-CNR of the project “Design and realization of an advanced immune-assay for an early diagnosis of endocrine tumors – Italian Flagship Project – NANOMAX funded by CNR (2012-2014);

30) - Principal Investigator IBP-CNR of the project “CAMPUS–QUARK” funded by Regione Campania (2012-2014);

31) - Principal Investigator IBP-CNR of the project “CISIA” funded by Consiglio Nazionale delle Ricerche (2011-2013);

32) - Principal Investigator of the project “Innovative biosensors for the detection of the aflatoxin M1 in milk” funded by Granarolo Spa (2010-2011);

33) - Principal Investigator IBP-CNR of a WP of the project “Innovative biosensors Innovative fluorescence biosensors for glucose detection”. Bioteknet. Funded by Campania Region. (2004-2008);

34) - Principal Investigator IBP-CNR of the project “An optical based biosensor for the detection of pollutants” funded by the Italian Centre for Aeronautic Research. (2006);

35) - Principal Investigator IBP-CNR of the project “A fluorescence biosensor for the following-up of celiac disease. Campania Region. (2008);

## **Research Projects to which he has participated**

### International Projects

1) - Scientist involved in European project H2020- INFRADEV (2016-2017) - Progressing towards the construction of METROFOOD-RI Grant Agreement No.: 739568

2) - Scientist involved in European project H2020 INFRAIA ‘Industrial Biotechnology Innovation and Synthetic Biology Accelerator — IBISBA 1.0’ Grant Agreement No 730976 (2016-2020);

3) - Scientist involved in the NATO project with “Russian Academy of Science” “Development of an optical sensor for security, N. PSTNRCLG981025; (2004-2005);

4) - Scientist involved in the Philip Morris project – Biosensor for blood lactate monitoring (PI Karol Zygmunt Gryczynski); (2002-2004);

5) - Scientist involved in the American Diabetic Association project – Fluorescence biosensor for glucose monitoring (PI JR. Lakowicz); (2001-2003);

6) - Scientist involved in European project FP5 – (Prof. Mosè Rossi PI); (1997-1999);

7) - Scientist involved in project CNR-MOSA (Dr. Paolo Bazzicalupo PI); (1997-1998);

8) - Scientist involved in project CNR-MOSA (Dr. Roberto Nucci PI). (1996-1997);

### National Projects

9) Scientist involved in project DISBA-CNR “ACQUA” (2013-2015) (PI M. Centritto, F. Loreto);

- 10) Scientist involved in the CNR project “BIOTTASA” (2013-2017) (PI B. Angelini);
- 11) Scientist involved in project PON Dompè (PI Alberto Luini); (2012-2014);
- 12) Scientist involved in project PON Biodefensor (PI Giuseppe Manco); (2012-2014);
- 13) Scientist involved in project NATO - (Maria Staiano PI); (2006-2009);
- 14) Scientist involved in project “Biosensori per il glucosio” Legge 297 Eurochem Srl - Pomezia (RM) - (Mosè Rossi PI); (2001-2003);
- 15) Scientist involved in project MIUR – (Prof. Mosè Rossi PI); (2001-2003);
- 16) Scientist involved in project FIRB – L'altra metà del codice genetico - (Prof. Mosè ROSSI PI); (2003-2004)

### **Management Courses**

Course Title: “Safety and Health in the Workplaces” 24-10-2018 – CNR, Rome

Course Title: “Safety and Health in the Workplaces” 28-01-2019 – CNR, Rome.

Course Title: “The second evaluation criterion in Horizon: the impact” 17-10-2018 – CNR, Rome.

Course Title: GDPR - General Data Protection Regulation 19-07-2018- CNR, Rome.

Course Title: “H2020: Participant's portal, partner search, reporting and audit” 27-03-2018 – CNR, Rome.

Course Title: QUESTIONARIO Questions- The management of research projects - 01-03-2018 , CNR, Rome.

Course Title: “Safety and Health in the Workplaces” 08-03-2016 – CNR, Rome.

Course Title: Soft Skills for Research Team Management (First Part) 01-01-2016 – CNR, Rome.

Course Title: Soft Skills for Research Team Management (Second Part) 01-01-2016, CNR, Rome.

Course Title: “Safety and Health in the Workplaces” 06-10-2015 – CNR, Padova.

Course Title: “Management Path for CNR Scientific Structure Directors” Edition 2015 from 15-07-2015 to 16-07-2015 – CNR, Rome.

Course Title: Management Path for CNR Scientific Structure Directors - Edition 2015 23-06-2015 to 24-06-2015 – CNR, Rome.

### **Editorial Activity**

#### **EDITOR and/or Member of the Editorial Board of the following international Journals:**

1. PLOS ONE, USA – Academic Editor;
2. BMC Biochemistry - London – Editor (Section Chemical Biology);
3. Current Chemical Biology, Bentham Science- Associate Editor;
4. Sensors, MDPI, 4052 Basel, Switzerland: Editorial Board
5. International Journal of Molecular Sciences, Basel, Switzerland Editorial Board;
6. Journal of Fluorescence, Plenum Press, USA; Editorial Board;
7. Journal Proteomics, Bentham Science, USA; Editorial Board;
8. Protein Peptide Letters, Bentham Science, USA; Editorial Board
9. International Journal of Celiac Disease, USA; Editorial Board

10. AIMS of Biophysics, USA; Editorial Board

11. Recent patent in DNA and Gene Sequences, Bentham Science, USA; Editorial Board

### **Invited Lectures and Seminars in the last 10 years**

2019

- Invited speaker - Biosensori per la qualità e sicurezza degli alimenti - ENEA – Centro Ricerche Portici Piazzale Enrico Fermi – Località Granatello, 29 January 2019 Portici (NA), Italy
- Invited to Academic Roundtable and High-Level event on the Mediterranean Diet - Symposium on the Future of Food, 10-11 June 2019, Food and Agriculture Organization of the United Nations (FAO), Rome Italy
- Invited speaker Kick-off meeting H2020 Project ENDONANO – ESR3 presentation, 16-17 January 2019, CNR Napoli, Italy

2018

- Invited speaker - Nanoscience & Nanotechnology 2018 – Nanotechnological-based applications for analyses of high social interest 18-20 December 2018 National Laboratory Frascati (RM) Italy
- Invited speaker - Health 4.0 - The innovation that speaks Italian. Annual Meeting of the scientific attaché 2018. Ministry for Foreign Affairs, Rome, Italy, 5-6 February 2018

2017

- Invited speaker “Advanced Bio/sensors: Molecules, Materials and Light.” Optical Sensors, Prague Czech Republic, 24 - 27 April 2017.
- Invited speaker “Introduction to the Fluorescence” Second International Course Advanced Fluorescence Application in Biotechnology & Biology 3-4 May 2017, Avellino

2016

- Invited speaker and co-organizer “Biosensoristica per l’Agricoltura 2.0”, Accademia dei Georgofili, Firenze 24 October 2016.
- Invited speaker - IMEKO-FOODS, Palazzo Paolo V, Benevento, Italy 4 October 2016 2016.
- First International Course Advance Application of Fluorescence Spectroscopy Avellino ISA CNR 6 July 2016.
- Invited speaker - Understanding protein structure opens new diagnostic Avenues – IVALSA Area Ricerca Sesto Fiorentino, Italy 20 July 2016.
- Advanced Sensing Devices for Food Safety, Seeds & Chips, Milan, Italy 11 May 2016.
- Invited speaker - Progettazione di nuovi biosensori ottici per una diagnostica avanzata, IMAA-CNR, Tito, Italy 5 April 2016.
- Invited speaker - Sensors: Light, Materials and Molecules, 11 ITS European Congress Glasgow EU project SafeStrip, UK – 10 June 2016.
- Invited speaker - Progettazione di nuovi biosensori ottici per una diagnostica avanzata, Cesma, San Giovanni, Naples, Italy, 22 June 2016.

2015

- Invited Speaker “La tutela dell’ambiente per la tutela della salute” Carcere Borbonico, 15 October 2015 Avellino, Italy.
- Invited Speaker, Centro Servizi del Distretto Agroalimentare del Tavoliere Missione incoming di operatori canadesi Teatro Umberto Giordano, Sala Fedora -, Martedì 16-17 September 2015 Foggia, Italy.
- Invited Speaker “Il futuro dell’Irpinia nella ricerca ed internazionalizzazione”, Comune di Avellino, Sede Consiliare – Palazzo di Città, 19 June, 2015, Avellino, Italy.

- Key note speaker – Materiali Nanofasici XI National Conference, CNR 26-28 October 2015, Rome, Italy.
- Invited Speaker – Sud oltre EXPO- 22-25 April 2015 – University of Salerno, Italy.
- Invited Speaker – World Food Forum – ASTER – March 26, 2015, Brussels, Belgium.
- Invited Speaker- La Dieta Mediterranea – Emozioni UNESCO. February 27, 2015, Padula, Salerno, Italy.
- Invited Speaker- Giornata Presentazione ISPAM-CNR, January 17, 2015 Ponticelli, Napoli, Italy.

#### 2014

- Invited Speaker - The Road to Expo: “The Quest of Nano-Particle Detection in Our Food, December 5 2014, CNR Roma.
- Invited Speaker, Luce e Alimentazione – Giornata di Studio “Luce & Futuro” December 1 2014, CNR, Napoli.
- Invited Speaker- Giornata Presentazione ICB-CNR, October 24, 2014 Pozzuoli (NA), Italy.
- Invited Seminar at Polytechnics University of Turin, Italy October 8 2014.
- “Advanced Nanostructured Fluorescence Biosensors for Safety and Health” – NANOFORUM, September 24 2014, Rome, Italy (Invited Speaker).
- “Advanced Optical applications in Medicine and Life Sciences” International Congress 2014 Warsaw, Poland September 9-12, 2014 (Invited Lecture).
- “Understanding Protein Structure Opens New Diagnostic Avenues”, International Congress Biophysics@Rome, Rome, Italy (Invited Lecture) May 22-23, 2014.
- Advanced Biosensing Application for Food safety – Science and Technological park, Trieste-Euroclone Spa (Invited Seminar) Trieste, Italy March 22 2014.
- Proteins and Biotech Applications – Fondazione San Lucia, Rome, Italy. February 22 2014 (Invited seminar).
- Biosensors: An overview. University of Naples Federico II, Napoli, Italy February 13, 2014 (Invited Seminar).

#### 2013

- "Un sistema avanzato di bio-sensori ottici per la sicurezza", Workshop on Research Activity and Innovation for Security and Privacy at CNR, May 14 2013 at CNR, Rome; (Invited Speaker).
- Progettazione di nuovi biosensori ottici per una diagnostica avanzata, 7 Giugno 2013 ICRM, CNR, Milan, Italy; (Invited Speaker).
- Advanced Optical Protein-based Biosensors as New Promising Tools in Diagnostics, The Fourth International Workshop on Advanced Spectroscopy and Optical Materials 4–19 July 2013, Gdansk, Poland (Invited Speaker).

#### 2012

- Bioforum IGB-CNR, Napoli 7-8 June 2012 – Invited speaker.
- CFG Fotonica Meeting- Selex SI, Roma March 27 2012 – Invited speaker.
- University of Florence, New methodologies for an easy sensing, January 20 2012, Invited Speaker.
- Università di Salerno “I Martedì di Bioinformatica” – Advanced optical sensor for analytes of social interest Salerno, Italy January 17 2012, Invited Speaker.

#### 2011



- European FP7 Project CUSTOM meeting – 28-29 September, Thales Research and Technology (TRT) at Palaiseau, Paris, France – Invited Speaker.
- Advanced fluorescence-based biosensors for analyses of high social interest, Dept. of Physics, Università di Napoli Federico II, Napoli, Italy January 25 2011, Invited Speaker.

2010

- International Conference on Microbial Diversity. 26-28 October 2011, Milan, Italy. Invited Speaker.
- Advanced bio-sensing approaches for analytes of interest for health and food safety ISPA-CNR, Sala Congressi del CNR-Area della Ricerca di Bari, Bari, Italy, November 10 2010. Invited Speaker.
- University of North Texas, Fort Worth, TX, USA. Protein-based sensors for markers of high social interest. Fort Worth, TX, USA July 30 2010, Invited Speaker.
- Workshop Nanotech for food, Filarete, Milan, Italy March 25 2010 (Invited Speaker).

### **Conference Committee involvement**

- 7° International Symposium on Sensor Science, 9-11 May 2019 Naples, Italy (Scientific Committee);
- First Training Course on “Intellectual property and Technology Transfer”, 18-19 December 2017, ISA-CNR, Avellino, Italy - (Organizer).
- Second International Course on Advanced Applications of Fluorescence Spectroscopy, 3-4 May 2017, ISA-CNR, Avellino, Italy- (Organizer).
- Special Session “Biosensoristica per l’Agricoltura 2.0” Accademia dei Georgofili, 24 October 2016 Florence, Italy- (Organizer).
- First International Course on Advanced Applications of Fluorescence Spectroscopy, 4-6 July 2016, ISA-CNR, Avellino, Italy- (Organizer).
- Meeting (F4F)2 - Future for Food and Food for Future (2) 17 July 2015, EXPO, Milan, Italy; (Organizer).
- Meeting (F4F)2 - Future for Food and Food for Future, CNR - via Bassini 15, Milan, Italy- (Organizer).
- Meeting of the European Project EDA- BIOTYPE 10-11 December 2014, Salerno, Italy- (Organizer).
- Meeting of the European Project FP7 MARIABOX, 17-18 September 2014, Salerno, Italy- (Organizer).
- Single Molecule Spectroscopy and Imaging II 22-27 January 2010 San Jose, CA, USA- (Member of Conference Committee).
- Single Molecule Spectroscopy and Imaging II 24 - 29 January 2009 San Jose, CA, USA- (Member of Conference Committee).
- Single Molecule Spectroscopy and Imaging 19 - 24 January 2008 San Jose, CA, USA- (Member of Conference Committee).
- Advanced Biomedical and Clinical Diagnostic Systems VI 19 - 24 January 2008 San Jose, CA, USA- (Member of Conference Committee).
- Ultrasensitive and Single-Molecule Detection Technologies II 20 - 25 January 2007 San Jose, CA, USA- (Member of Conference Committee).

- IV Symposium Advanced Technologies for Defence- Ministry for Defence, 21-22 June 2007, Rome, Italy- (Member of Conference Committee).
- Advanced Biomedical and Clinical Diagnostic Systems V 20 - 25 January 2007 San Jose, CA, USA- (Member of Conference Committee).
- Advanced Biomedical and Clinical Diagnostic Systems IV 21 - 26 January 2006 San Jose, CA, USA- (Member of Conference Committee).
- Ultrasensitive and Single-Molecule Detection Technologies 21 - 26 January 2006 San Jose, CA, USA- (Member of Conference Committee).
- Science for Food – Festival della Scienza di Genova – November 2006, Italy; (Member of Conference Committee).
- Advanced Biomedical and Clinical Diagnostic Systems III 22 - 27 January 2005 San Jose, CA, USA- (Member of Conference Committee).
- Biohazard Detection Technologies 24 - 29 January 2004 San Jose, CA, USA - (Member of Conference Committee).

## Patents

1. Process of Immobilizing Biomolecules In Porous Supports By Using An Electronic Beam.  
**D'Auria S.** et al.,  
*US Patent 20090036326, February 5, 2009;*
2. Process of Immobilizing Biomolecules In Porous Supports By Using An Electronic Beam.  
**D'Auria S.** et al.,  
*CA 2589838 A1, May 30 2007;*
3. Inactive Enzymes as non-consuming sensors.  
**D'Auria S.**, et al.  
*PCT/US2000/024846; (15/03/2001)*
4. Immobilizzazione di biomolecole su supporti porosi, tramite fascio elettronici, per applicazioni in campo biomedico ed elettronico.  
**D'Auria, S.** Rossi AM, Rossi M, Borini S  
Italian Patent N. 001353977 6 February 2009
5. A new Immunological assay for detection of patulin toxin.  
**D'Auria S.**, et al.,  
*PCT /IT2007/000045; (26 July 2007)*
6. Nuovo metodo immunologico per la determinazione di patulina negli alimenti  
**D'Auria S.**, De Champodorè M., Bazzicalòupo P., Rossi M.  
Italian Patent ITNA20060006 (23/01/2006)
7. Un nuovo metodo a fluorescenza per la rilevazione di cadmio nelle acque e negli alimenti.  
**D'Auria S.**, Rossi M., Varriale A.  
*Italian Patent 0001384497 (30 December 2010) ;*
8. Nuovo metodo immunologico per la rilevazione di glutine negli alimenti.  
**D'Auria S.**, Rossi M., Rossi M.  
*Italian Patent 0001369726 (18 January 2010)*
9. Metodo per il rilevamento di micotossine nel latte, suoi derivati e prodotti caseari.  
**D'Auria S.**, Di Giovanni S., Zambrini MV  
*Italian Patent 0001420802 (29 January 2016)*
10. Apparecchiatura per la rilevazione della presenza di un analita in un campione di sostanza, in particolare di prodotto alimentare  
**D'Auria S.**, Luini A., Rossi M  
*Italian Patent n. 0001421445 (18 March 2016)*

### **Figures selected as Cover Front -Image of International Journals**

1. Molecular Systems. Design & Engineering, 2017, Vol. 2
2. Food4Future, CNR Publisher, 2016.
3. Analytical Methods, 2012, Vol. 4, 10.
4. Analytical Methods 2012 Vol. 4, 11.
5. Nanoscale 2011, Vol. 3, 1.
6. The Journal of Physical Chemistry 2011, Vol 115, 12.
7. Proteomics, 2010 Vol. 10, 10.
8. Molecular Bio/Systems, 2010, Vol. 6,4.
9. Biopolymer, 2010 Vol. 93, 8.
10. Molecular Bio/Systems, 2005, Vol. 1,5-6.
11. Biochemical Journal, 2004, Vol. 381

## **Dr. Sabato D'Auria List of Publications**

### ***Publications on International peer-reviewed journals***

216. Emergent biosensing technologies for analyses of high social interest  
A. Camarca, A. Varriale, A. Capo, A. Pennacchio, A. Calabrese, C. Giannattasio, C. Murillo Almuzara, Sabato D'Auria\*, M. Staiano  
**Sensors** (2021) 21, 906. <https://doi.org/10.3390/s21030906> \*Corresponding Author
215. A fluorescence immunoassay for a rapid detection of *Listeria monocytogenes* on working surfaces  
A. Capo, Sabato D'Auria\*, M. Lacroix.  
**Scientific Reports** (2020) 10(1):21729. doi: 10.1038/s41598-020-77747-y. \*Corresponding Author
214. Spectroscopic properties of two 5'-(4-dimethylamino)azobenzene conjugated G-quadruplex forming oligonucleotides.  
C. Imperatore, A. Varriale, E. Riviuccio, A. Pennacchio, M. Staiano, Sabato D'Auria, M. Casertano, C. Altucci, M. Valadan, M. Singh, M. Menna, M. Varra  
**Int J Mol Sci.** (2020) 21(19): E7103. doi: 10.3390/ijms21197103.
213. Structural features of the glutamate-binding protein from *Corynebacterium glutamicum*  
A. Capo, A. Natalello, J. Marienhagen, A. Pennacchio, A. Camarca, S. Di Giovanni, M. Staian, Sabato D'Auria\*, A. Varriale  
**Int J Biol Macromol.** (2020) 162:903-912 \*Corresponding Author
212. Fluorescence polarization assay to detect the presence of traces of ciprofloxacin in milk  
H. El Kojok, N. El Darra, M. Khalil, A. Capo, A. Pennacchio, M. Staiano, A. Camarca, Sabato D'Auria\*, A. Varriale  
**Scientific Reports** (2020) 10(1):4550. doi: 10.1038/s41598-020-61395-3. \*Corresponding Author
211. Development of support based on chitosan and cellulose nanocrystals for the immobilization of anti-Shiga toxin 2B antibody  
S. Shankar, A. Baraketi, Sabato D'Auria, C. Frascini, S. Salmieri, M. Jamshidian, MC. Ety, M. Lacroix  
**Carbohydr Polym.** (2020) 232:115785. doi: 10.1016/j.carbpol.2019.115785
210. Novel spider web trap approach based on chitosan/cellulose nanocrystals/glycerol membrane for the detection of *Escherichia coli* O157:H7 on food surfaces  
A. Baraketi, Sabato D'Auria, C. Frascini, S. Salmieri, J. Menissier, M. Lacroix  
**Int J Biol Macromol.** (2020) 146:1009-1014. doi: 10.1016/j.ijbiomac.2019.09.225.
209. Design and development of photonic biosensors for swine viral diseases detection  
A. Griol, S. Peransi, M. Rodrigo, J. Hurtado, L. Bellieres, T. Ivanova, D. Zurita, C. Sánchez, S. Recuero, A. Hernández, S. Simón, G. Balka, I. Bossis, A. Capo, A. Camarca, Sabato D'Auria, A. Varriale, A. Giusti  
**Sensors** (2019) 19, 3985; doi:10.3390/s19183985
208. A circulating NAD biosynthetic enzyme is a novel modulator of inflammation  
A. Managò, Audrito V., Mazzola F., Sorci L., Gaudino F., Gizzi K., Incarnato D., Minazzato G., Ianniello A., Varriale A., Sabato D'Auria, Mengozzi G., Politano G., Oliviero S., Raffaelli N., S. Deaglio  
**Nature Communications** (2019) 10:4116 | <https://doi.org/10.1038/s41467-019-12055-2>
207. A Sweet Sensor for detection of the aflatoxin M1 in Whole Milk  
S. Di Giovanni, Zambrini, V., Varriale, A., Sabato D'Auria  
**ACS Omega** (2019) 4, 12803–12807
206. New immobilization method of anti-PepD monoclonal antibodies for the detection of *Listeria monocytogenes* p60 protein – Part B: Rapid and specific sandwich ELISA using antibodies immobilized on a chitosan/CNC film support  
MC. Ety, Sabato D'Auria, S. Shankar, S. Salmieri, J. Coutu, A. Baraketi, M. Jamshidan, C. Frascinic, M. Lacroix  
**Reactive and Functional Polymers** (2019) 143 (2019) 104317

205. New immobilization method of anti-PepD monoclonal antibodies for the detection of *Listeria monocytogenes* p60 protein – Part A: Optimization of a crosslinked film support based on chitosan and cellulose nanocrystals (CNC)  
MC. Etty, [Sabato D'Auria](#), S. Shankar, S. Salmieri, J. Coutu, A. Baraketi, M. Jamshidan, C. Frascinic, M. Lacroix  
**Reactive and Functional Polymers** (2019) doi.org/10.1016/j.reactfunctpolym.2019.06.021
204. Effect of the optimized selective enrichment medium on the expression of the p60 protein used as *L. monocytogenes* antigen in specific sandwich ELISA.  
Etty MC, [Sabato D'Auria](#), Frascini C, Salmieri S, Lacroix M.  
**Res Microbiol.** (2019) pii: S0923-2508(19)30036-1. doi: 10.1016/j.resmic.2019.03.004
203. A signalling cascade involving receptor-activated phospholipase A2, glycerophosphoinositol 4-phosphate, Shp1 and Src in the activation of cell motility  
A. Varone, S. Marigiò, M Patheja, V. Maione, A. Varriale, M. Vessichelli, D. Spano, F. Formiggini, M. Lo Monte, N. Brancati, M. Frucci, [Sabato D'Auria](#), A. Flagiello, C. Iannuzzi, A. Luini, P. Pucci, L. Banci, C. Valente, D. Corda  
**Cell Commun Signal** (2019) doi.org/10.1186/s12964-019-0329-3
202. A diagnostic Device for in-situ detection of swine viral diseases: The SWINOSTICS Project  
C; Montagnese, P. Barattini, A. Giusti, G. Balka, U. Bruno, I. Bossis, A. Gelasakis, M. Bonasso, P. Philimis, S. Peransi, M. Rodrigo, A. Griol, G. Wozniakowski, K. Podgorska, C. Pugliese, L. Nannucci, [Sabato D'Auria\\*](#), A. Varriale  
**Sensors** (2019) 19, 407; doi: 10.3390/s19020407 \*Corresponding Author
201. WaterSpy: A high sensitivity, portable photonic device for pervasive water quality analysis  
N. Doulamis, A. Voulodimos, A. Doulamis, M. Bimpas, A. Angeli, A. Giusti, P. Philimis, A. Varriale, A. Ausili, [Sabato D'Auria](#), G. Lampropoulos, M. Baer, B. Schmauss, S. Freitag, B. Lendl, K. Młynarczyk, A. Sosna-Głębsk, A. Trajnerowicz, J. Pawluczyk, M. Žbik, J. Kułakowski, P. Georgiadis, S. Blaser, N. Bazzurro  
**Sensors** (2019) 19,1,33; doi:10.3390/s19010033
200. Molecular determinants of ER–Golgi contacts identified through a new FRET–FLIM system.  
R. Venditti, LR. Rega, MC. Masone, M. Santoro, E. Polishchuk, D. Sarnataro, S. Paladino, [Sabato D'Auria](#), A. Varriale, V. Olkkonen, G. Di Tullio, R. Polishchuk, MA De Matteis  
**Journal Cell Biology** (2019) vol. 218, 3; doi.org/10.1083/jcb.201812020
199. Detection of naphthalene in sea-water by a novel optical biosensor  
N. Cennamo, L. Zeni, E. Ricca, R. Isticato, VM. Marzullo, A. Capo, M. Staiano, [Sabato D'Auria\\*](#), A. Varriale  
**Talanta** (2019) 194:289-297 \*Corresponding Author
198. Setting up and exploitation of a nano/technological platform for the evaluation of HMGA1b protein in the peripheral blood of cancer patients  
A. Capo, R. Sepe, G. Pellino, M. Milone, U. Malapelle, S. Pellecchia, M. Manigrasso, M. Galgani, F. Selvaggi, G. Troncone, A. Fusco, [Sabato D'Auria\\*](#), P. Pallante  
**Nanomedicine** (2019) 15(1):231-242 \*Corresponding Author
197. The porcine odorant-binding protein as molecular probe for benzene detection  
A. Capo, A. Pennacchio, A. Varriale, [Sabato D'Auria\\*](#), M. Staiano  
**PLOS ONE** (2018) Sep 5;13(9): e0202630. doi: 10.1371/journal.pone.0202630 \*Corresponding Author
196. Domain swapping dissection in *Thermotoga maritima* arginine-binding protein: how structural flexibility may compensate destabilization  
G. Smaldone, R. Berisio, N. Balasco, [Sabato D'Auria](#), L. Vitagliano, A. Ruggiero  
**BBA Proteins and Proteomics**, (2018) 1866(9):952-962
195. Cloning and bacterial expression systems for recombinant human heparanase production. Substrate specificity investigation by docking of a putative heparanase substrate  
A. Pennacchio, A. Capo, S. Caira, A. Tramice, A. Varriale, M. Staiano, [Sabato D'Auria](#)  
**Biotech Applied Biochem.** (2018) 65(1):89-98
194. A High Sensitivity Biosensor to detect the presence of perfluorinated compounds in environment  
N. Cennamo, L. Zeni, P. Tortora, ME. Regonesi, A. Giusti, M. Staiano, [Sabato D'Auria\\*](#), A. Varriale  
**Talanta** (2018) 178:955-961 \*Corresponding Author

193. Binding of mycotoxins to proteins involved in neuronal plasticity: a combined in silico/wet investigation. B. Scafuri, A. Varriale, A. Facchiano, [Sabato D'Auria](#), ME. Raggi, A. Marabotti **Scientific Reports** (2017) 7(1):15156
192. Osmolyte-like effect of low GdnHCl concentrations on D-glucose/D-galactose-binding protein AV. Fonin, AD. Golikova, IA. Zvereva, [Sabato D'Auria](#), M. Staiano, VN. Uversky, IM. Kuznetsova, KK. Turoverov **Int. J. Mol. Sci.** (2017) 18, 2008
191. Engineering a switch-based biosensor for arginine using a *Thermotoga maritima* periplasmic binding protein T. Donaldson, L. Iozzino, LJ. Deacon, H. Billones, A. Ausili, [Sabato D'Auria](#), JD. Dattelbaum **Anal Biochem.** (2017) 525:60-66
190. Modern concepts to study molecular interactions M. Strianese, M. Staiano, A. Capo, G. Pinto, C. Pellecchia, [Sabato D'Auria](#) **Molecular Systems Design & Engineering** (2017), 2, 123–132
189. Enzymes as Sensors M. Staiano, A. Pennacchio, A. Varriale, A. Capo, A. Majoli, C. Capacchione, [Sabato D'Auria](#) **Methods Enzymol.** (2017) 589:115-131
188. Covalent antibody immobilization under oriented manner on silicon nitride detection surfaces, enhancement of antibodies binding performances A. Varriale, K. Bonnot, S. Peransi, A. Scala, [Sabato D'Auria](#) **Colloids and Surface B: Interfaces** (2016) 148:585-591
187. High pressure effect on structure and stability of the fluorescent protein monomeric Kusabira Orange LP. Palmade, DC. Lucia, R. Lange, A. Facchiano, A. Pennacchio, M. Staiano, [Sabato D'Auria](#) **Biochemistry and Biophysics Reports** (2016) 7-138–143
186. Proline 235 plays a key role in the regulation of the oligomeric states of *Thermotoga maritima* Arginine Binding Protein G: Smaldone, M. Vigorita, A. Ruggiero; N. Balasco, JD Dattelbaum, [Sabato D'Auria](#), P. Del Vecchio, G. Graziano, L. Vitagliano **Biochim Biophys Acta** (2016) 1864(7):814-24
185. On the possibility of ephedrine detection: A Time-Resolved Fluorescence Resonance Energy Transfer (FRET)-based approach A. Varriale, VM. Marzullo, S. Di Giovanni, A. Scala, A. Capo, A. Majoli, A. Pennacchio, M. Staiano, [Sabato D'Auria](#) **Analytical Bio/analytical Chemistry** (2016) 408(23):6329-36
184. A Shear horizontal surface acoustic wave biosensor for a rapid and specific detection of d-serine F. Di Pietrantonio, M. Benetti, D. Cannatà, E. Verona, M. Girasole, M. Fosca, S. Dinarelli, M. Staiano, V.M. Marzullo, A. Varriale, [Sabato D'Auria](#) **Sensors & Actuators: B. Chemical** (2016), 226, 1–6
183. A novel fluorescence polarization assay for determination of penicillin G in milk. Pennacchio A, Varriale A, Scala A, Marzullo VM, Staiano M, [Sabato D'Auria](#) **Food Chem.** (2016) 190:381-5
182. P. Barattini, E. Garcés, M. Bonasso, S. Mier, P. Philimis, A. Giusti, K. Thomas, A. Varriale, [Sabato D'Auria](#), J. Fitzgerald, I. Maguire, R. O'Kennedy, J. Ducree, F. Regan Mariabox an autonomous monitoring device for marine pollution: from the laboratory to a product: design challenges and real-world trade-off **Instrumentation Viewpoint** (2105) 18:55-56
181. A fluorescence polarization assay to detect steroid hormone traces in milk. Varriale A, Pennacchio A, Pinto G, Oliviero G, D'Errico S, Majoli A, Scala A, Capo A, Pennacchio A, Di Giovanni S, Staiano M, [Sabato D'Auria](#) **J Agric Food Chem.** (2015) 63(41):9159-64
180. A Rapid and sensitive assay for the detection of benzylpenicillin (Pen G) in milk A. Pennacchio, A. Varriale, MG. Esposito, M. Staiano, [Sabato D'Auria](#) **PLOS ONE** (2015) 10(7): e0132396.

179. An advanced near-infrared fluorescence bio/sensing methodology to detect the presence of traces of patulin toxin in real food matrices  
A. Pennacchio, A. Varriale, MG. Esposito, M. Staiano, Sabato D'Auria  
**Analytical Biochemistry** (2015) 481:55-9
178. Studies of conformational changes of an arginine-binding protein from *Thermotoga maritima* in the presence and the absence of ligand with use of the molecular dynamic simulations with the coarse-grained UNRES force field.  
AG. Lipska, AK. Sieradzan, P. Krupa, MA. Mozolewska, Sabato D'Auria, A. Liwo  
**Journal Molecular Modelling** (2015) (3):2609
177. Antigen delivery by filamentous bacteriophage fd displaying anti-DEC-205 single-chain variable fragment bypasses the need of adjuvants by triggering TLR9 in late endosomes  
R. Sartorius L. D'Apice, M. Trovato, F. Cuccaro, V. Costa, MG. De Leo, VM. Marzullo, C. Biondo, Sabato D'Auria, MA. De Matteis, A. Ciccodicola, PG De Berardinis  
**EMBO Molecular Medicine** (2015) 7(7):973-88
176. Tryptophan residues of the D-glucose/D-galactose-binding protein from *E. coli* localized in its active center does not contribute to the change in intrinsic fluorescence upon glucose binding.  
OV. Stepanenko, AV. Fonin, OV. Stepanenko, M. Staiano, Sabato D'Auria, IM. Kuznetsova, KK. Turoverov  
**Journal of Fluorescence** (2015) (1):87-94
175. Easy to use plastic optical fiber-based biosensor for detection of butanal  
N. Cennamo, S. Di Giovanni, A. Varriale, M. Staiano, F. Di Pietrantonio, A. Notargiacomo, L. Zeni, Sabato D'Auria  
**PLOS ONE** (2015) 10(3): e0116770
174. A surface acoustic wave bio-nose for detection of volatile odorant molecules F. Di Pietrantonio, M. Benetti, D. Cannatà, E. Verona, A. Palla-Papavlu, J.-M. Fernández-Pradas, P. Serra, M. Staiano, A. Varriale, Sabato D'Auria  
**Biosensors and Bioelectronics** (2015) 15; 67:516-23
173. Toward a Compact Instrument for detecting drug precursors in different environments  
F Terzi, A. Ulrici, R. Seeber, A Secchi, AM Fiorello, M Dispenza, JC Antolín, T Kuusela, A Varriale, Sabato D'Auria, I Tittonen, F Colao, I Menicucci, M Nuvoli, P Ciambelli, V Venditto, J Uotila, G Maisons, M Carras  
**Sensors** (2014) 83-89
172. Development of a highly specific sandwich elisa for the detection of *Listeria monocytogenes*, an important foodborne pathogen  
JV. Coutu, Sabato D'Auria, C. Morissette, S. Salmieri, M. Lacroix  
**Microbiology Research International** (2014) Vol. 2(4), pp. 46-52 ISSN: 2354-2128
171. Galactin-3. A Promising drug delivery molecule in anticancer therapy  
V. P Bogoeva, A. Varriale, I. Ivanov, CM John, Sabato D'Auria  
**Comptes Rendus de la Academy Bulgare des Sciences** (2014) 67,5,715-720
170. Novel biosensors based on optimized glycine oxidase  
E. Rosini, L. Piubelli, G. Molla, L. Frattini, M. Valentino, A. Varriale, Sabato D'Auria, L. Pollegioni  
**FEBS Journal** (2014) 281(15):3460-72
169. A loose domain swapping organization confers a remarkable stability to the dimeric structure of the Arginine Binding Protein from *Thermotoga maritima*  
A. Ruggiero, JD Dattelbaum, M. Staiano, R. Berisio, Sabato D'Auria, L. Vitagliano  
**PLOS ONE** (2014) 9(5):e96560
168. Characterization of bacterial NMN deamidase as a Ser/Lys hydrolase expands diversity of serine amidohydrolases.  
L. Sorci, L. Brunetti, L. Cialabrini, F. Mazzola, MD. Kazanov, Sabato D'Auria, S. Ruggieri, N. Raffaelli  
**FEBS Letters** (2014) 588(6):1016-23
167. An innovative biophotonic gas sensor for the ultra-sensitive detection of DMMP as a simulant of SARIN  
K. Bonnot, F. Cuesta-Soto, M. Rodrigo, B. Siegert, A. Varriale, N. Sanchez, Sabato D'Auria, D. Spitzer and F. Lopez-Royo  
**Analytical Chemistry (ACS)** 2014 86(10):5125-30

166. The mKO: An orange-emitting fluorescence protein. Structure and stability  
A. Ausili, M. Staiano, A. Marabotti, G. D'Auria, JC. Gómez-Fernández, A. Torrecillas, A. Ortiz, Sabato D'Auria  
**Journal Photochem Photobiol B: Biology** (2014) 138C:223-229
165. A surface plasmon resonance-based biochip for the detection of patulin toxin  
A. Pennacchio, G. Ruggiero, M. Staiano, G. Piccialli, G. Oliviero, A. Lewkowicz, A. Synak, Sabato D'Auria  
**Optical Materials** (2014) Vol. 36,10, 1670-1675
164. The trehalose/maltose-binding protein as a sensitive element of a glucose biosensor  
A.V. Fonin, O.I. Povarova, M. Staiano, Sabato D'Auria, K. K. Turoverov I.M. Kuznetsova  
**Optical Materials** (2014) Vol. 36,10, 1676-1679
163. Preparation of surface acoustic wave odor sensors by laser-induced forward transfer  
A. Palla-Papavlu, A. Patrascioiu, F. Di Pietrantonio, J-M. Fernández-Pradas, D, Cannatà, M. Benetti, Sabato D'Auria, E. Verona, P. Serra  
**Sensors and Actuators B: Chemical** (2014) 192,369–377
162. Tryptophan-scanning mutagenesis of the ligand binding pocket in *Thermotoga maritima* arginine-binding protein  
LJ. Deacon, H. Billones, AA. Galyean, T. Donaldson, A. Pennachio, L. Iozzino, Sabato D'Auria, JD. Dattelbaum  
**Biochemie** (2014) 99:208-14
161. The quaternary structure of the recombinant bovine odorant-binding protein is modulated by chemical denaturants  
OV. Stepanenko, OV. Stepanenko, M. Staiano, IM. Kuznetsova, KK. Turoverov, Sabato D'Auria  
**PLOS ONE** (2014) Jan 7;9(1):e85169
160. Extending the range of FRET: The Monte Carlo study of the antenna effect.  
Walczewska-Szewc K, Bojarski P, Sabato D'Auria  
**J Mol Model.** (2013) Oct;19(10):4195-201
159. Tailoring Odorant-Binding protein coatings characteristics for Surface Acoustic Wave biosensor development  
F. Di Pietrantonio, M. Benetti, V. Dinca, D. Cannatà, E. Verona, Sabato D'Auria, M. Dinescu  
**Applied Surface Science** (2013) <http://dx.doi.org/10.1016/j.apsusc.2013.10.112>
158. Vesicular and non-vesicular glucosylceramide transport feed distinct glycosylation pathways  
G. D'Angelo, T. Uemura, CC Chuang, E. Polishchuk, M. Santoro, HO Rekilä, T. Sato, G. Di Tullio,  
A. Varriale, Sabato D'Auria, T. Daniele, F. Capuani, L. Johannes, P. Mattjus, F. Platt, A. Harada,  
MA. De Matteis  
**Nature** (2013) 501(7465):116-20
157. Fluorescence correlation spectroscopy and molecular dynamics simulations to study the structural futures of the maltotriose-binding protein from *Thermus thermophilus*  
A. Varriale, A. Marabotti, G. Mei, M. Staiano, Sabato D'Auria  
**PLOS ONE** (2013) Jun 4;8(6):e64840
156. Physicochemical characterization of a thermostable alcohol dehydrogenase from *Pyrobaculum aerophilum*  
A. Vitale, N. Thorne, S. Lovellc, KP. Battailed, X. Hu, M. Shen, Sabato D'Auria, DS. Auld  
**PLOS ONE** (2013) Jun 5;8(6):e63828
155. Interview with Sabato D'Auria, section editor for Chemical Biology  
Sabato D'Auria  
**BMC Biochem.** (2013) Jun 14;14(1):14
154. Amino acid transport in thermophiles: characterization of an arginine-binding protein from *Thermotoga maritima*. 4. A brief thermo-story  
A. Ausili, M. Staiano, JD. Dattelbaum, A. Varriale, A. Capo, Sabato D'Auria  
**Life** (2013) 3(1), 149-160
153. Structural analysis and Caco-2 cell permeability of the celiac-toxic A-gliadin peptide 31-55.  
Iacomino G, Fierro O, Sabato D'Auria, Picariello G, Ferranti P, Liguori C, Addeo F, Mamone G.  
**J Agric Food Chem.** (2013) Vol. 61, Issue 5, 1088-1096



152. Amino acid transport in thermophiles: characterization of an arginine-binding protein from *Thermotoga maritima*. 3. Conformational dynamics and stability  
A. Ausili, A. Pennacchio, M. Staiano, J. D. Dattelbaum, D. Fessas, A. Schiraldi, [Sabato D'Auria](#)  
**J Photochem Photobiol B.** (2013) 118:66-73
151. An innovative plastic optical fiber-based biosensor for new bio/applications. The case of celiac disease  
N. Cennamo, A. Varriale, A. Pennacchio, M. Staiano, D. Massarotti, L. Zeni, [Sabato D'Auria](#)  
**Sensors Actuators B Chemical** (2013) 176:1008–1014
150. Detection of odorant molecules via surface acoustic wave biosensor array based on odorant-binding proteins  
F. Di Pietrantonio, D. Cannatà, M. Benetti, E. Verona, A. Varriale, M. Staiano, [Sabato D'Auria](#)  
**Biosen. Bioelectron.** (2013) 41:328-34
149. Under pressure that splits a family in two. The case of lipocalin family  
S. Marchal, A. Marabotti, M. Staiano, A. Varriale, T. Domaschke, R. Lange, [Sabato D'Auria](#)  
**PLOS One.** (2012);7(11): e50489
148. A new competitive fluorescence immune-assay for detection of *Listeria Monocytogenes*  
S Beauchamp, [Sabato D'Auria](#), A. Pennacchio, M. Lacroix  
**Analytical Methods** (2012) DOI: 10.1039/C2AY25997D
147. A biophotonic sensor for the specific detection of DMMP vapors at the ppb level  
Bonnot, K, Siegert, B, Piazzon, N, Spitzer, D, Sansano, J, Rodrigo, M, Cuesta-Soto, F, Varriale, A, [Sabato D'Auria](#), Sanchez, N, Lopez-Royo, F, Sanchez, J.J.  
**Future Security** (2012) Volume 318, Pages 428-31
146. Determination of benzyl methyl ketone, a commonly used precursor in amphetamine manufacture  
S. Di Giovanni, A. Varriale, VM. Marzullo, G. Ruggiero, M. Staiano, A. Secchi, L. Pierno, AM. Fiorello, [Sabato D'Auria](#)  
**Analytical Methods** (2012) 4, 3558-3564
145. Alcohol dehydrogenase from the hyperthermophilic archaeon *Pyrobaculum aerophilum*: Stability at high temperature  
A. Ausili, A. Vitale, F. Rosso, T. Labella, A. Barbarisi, [Sabato D'Auria](#)  
**Archives Biochem. Biophys.** (2012) 525(1):40-6
144. Engineering resonance energy transfer for advanced immunoassays: The case of celiac disease  
[Sabato D'Auria](#), Apicella E, Staiano M, Di Giovanni S, Ruggiero G, Rossi M, Sarkar P, Luchowski R, Gryczynski I, Gryczynski Z  
**Anal Biochem** (2012) 1;425(1):13-7
143. Fluorescence-based biosensors  
M. Strianese, M. Staiano, G. Ruggiero, T. Labella, C. Pellecchia, [Sabato D'Auria](#)  
**Method Mol Biol.** (2012) 875:193-216
142. Porous silicon wafer-based "lab on chip" sensor  
[Sabato D'Auria](#), A. Varriale, G. Ruggiero, M. Staiano  
**Encyclopedia of Metalloproteins** (2012) V. Uversky, RH, Kretsinger, E A. Permyakov (Eds), Springer, New York
141. A surface plasmon resonance-based biochip to reveal traces of ephedrine  
A. Varriale, M. Staiano, M. Strianese, M. Marzullo, G. Ruggiero, A. Secchi, M. Dispensa, AM. Fiorello, [Sabato D'Auria](#)  
**Analytical Methods** (2012) 4, 1940-44
140. D-Serine-Dehydratase from *Saccharomyces cerevisiae*. A pyridoxal -5'-phosphate-dependent enzyme for advanced biotech applications  
M. Staiano, M. Strianese, A. Varriale, S. Di Giovanni, D. Scotto di Mase, V. Dell'Angelo, G. Ruggiero, T. Labella, C. Pellecchia, [Sabato D'Auria](#)  
**Protein Peptide Letters** (2012) Vol. 19, No. 5, 2012

139. Extending Förster resonance energy transfer measurements beyond 100 Å using common organic fluorophores: enhanced transfer in the presence of multiple acceptors.  
Maliwal BP, Raut S, Fudala R, [Sabato D'Auria](#), Marzullo VM, Luini A, Gryczynski I, Gryczynski Z.  
**J Biomed Opt.** (2012) (1):011006.
138. New insight in protein-ligand interactions. 2. Stability and properties of two mutant forms of the D-galactose/D-glucose-binding protein from *E. coli*.  
Stepanenko OV, Fonin AV, Stepanenko OV, Morozova KS, Verkhusha VV, Kuznetsova IM, Turoverov KK, Staiano M, [Sabato D'Auria](#)  
**J Phys Chem B.** (2011) 115(29):9022-32
137. Long-distance FRET analysis: A Monte Carlo simulation study.  
Bojarski P, Kulak L, Walczewska-Szewc K, Synak A, Marzullo VM, Luini A, [Sabato D'Auria](#)  
**J Phys Chem B.** (2011) 115(33):10120-5.
136. Crystallization and preliminary X-ray crystallographic analysis of ligand-free and arginine-bound forms of *Thermotoga maritima* arginine-binding protein.  
Ruggiero A, Dattelbaum JD, Pennacchio A, Iozzino L, Staiano M, Luchansky MS, Der BS, Berisio R, [Sabato D'Auria](#), Vitagliano L.  
**Acta Crystallogr Sect F Struct Biol Cryst Commun.** (2011) 67(Pt 11):1462-5
135. New insight into protein-ligand interactions. The case of the D-galactose/D-glucose-binding protein from *E. coli*.  
OV. Stepanenko, OV. Stepanenko, OI. Povarova, AV. Fonin, IM. Kuznetsova, KK. Turoverov, M. Staiano, A. Varriale, [Sabato D'Auria](#)  
**Journal Physical Chem B** (2011) 115(12):2765-73
134. Myoglobin as a fluorescence probe to sense H<sub>2</sub>S  
M. Strianese, F. De Martino, C. Pellecchia, G. Ruggiero, [Sabato D'Auria](#)  
**Protein Peptide Letters** (2011) 18(3):282-6
133. Absorption into fluorescence. A method to sense biologically relevant gas molecules  
M. Strianese, A. Varriale, M. Staiano, C. Pellecchia, [Sabato D'Auria](#)  
**Nanoscale** (2011) 3:298-302
132. The archeal topoisomerase reverse girase is a helix-destabilizing protein that unwinds four-way DNA functions  
A. Valenti, G. perugino, A. Varriale, M. Rossi, [Sabato D'Auria](#), M. Ciaramella  
**J Biol Chem** (2010) 285: 36532-36541
131. Denaturation of proteins with beta-barrel topology induced by guanidinium hydrochloride.  
OV. Stepanenko, IM. Kuznetsova, VV. Verkusha, M. Staiano, [Sabato D'Auria](#), KK. Turoverov  
**Spectroscopy** (2010) 24, 367-373
130. High stability of trehalose/maltose binding protein from *Thermococcus litoralis* makes it a good candidate as a sensitive element in biosensor systems for sugar control.  
OI. Povarova, OV. Stepanenko, AI. Sulatskaya, IM. Kuznetsova, KK. Turoverov, M. Staiano, A. Vitale, [Sabato D'Auria](#)  
**Spectroscopy** (2010) 24: 349-353
129. Structure and stability of D-galactose/D-glucose-binding protein. The role of D-glucose binding and Ca ion depletion  
OV. Stepanenko OI. Povarova, OV. Stepanenko, AV. Fonin, IM. Kuznetsova, KK. Turoverov, M. Staiano, [Sabato D'Auria](#)  
**Spectroscopy** (2010) 24: 355-359
128. Properties and evolution of an alcohol dehydrogenase from the Crenarchaeota *Pyrobaculum aerophilum*.  
Vitale A, Rosso F, Barbarisi A, Labella T, [Sabato D'Auria](#)  
**Gene** (2010) 1,1-2, 26-31
127. Amino acid transport in thermophiles: characterization of an arginine-binding protein in *Thermotoga maritima*. 2. Molecular organization and structural stability  
A. Scirè, A. Marabotti, M. Staiano, L. Iozzino, MS. Luchansky, BS. Der, JD. Dattelbaum, F. Tanfani, [Sabato D'Auria](#)  
**Mol. Biosyst.** (2010) Apr;6(4):687-9

126. New trends in bio/nanotechnology. Stable proteins as advanced molecular tools for health and environment  
M. Staiano, M. Baldassarre, M. Esposito, R. Vitale, V. Aurilia, Sabato D'Auria  
**Environmental Technology** (2010) (8-9), 935-42.
125. Crystal structure of an S-formylglutathione hydrolase from *Pseudoalteromonas haloplanktis* TAC 125  
V. Alterio, V. Aurilia, A. Romanelli, A. Parracino, M. Saviano, Sabato D'Auria, G. De Simone  
**Biopolymers** (2010) 8,669-677.
124. Human galectin-3 interacts with two anticancer drugs: a spectroscopic study  
V. Bogoeva, A. Varriale, CM. Costance, Sabato D'Auria  
**Proteomics** (2010) 10,10,1948-53.
123. Amino acid transport in thermophiles: characterization of an arginine-binding protein in *Thermotoga maritima*  
MS Luchansky, BS. Der, Sabato D'Auria, G. Pocsfalvi, L. Iozzino, JD Dattelbaum  
**Mol. Biosyst.** (2010) 1:132-41
- 122 Surface acoustic wave biosensor based on a recombinant bovine odorant-binding protein  
Di Pietrantonio, F, Zaccari, I, Benetti, M, Cannatà, D, Verona, E, Crescenzo, R, Scognamiglio, V, Sabato D'Auria  
**Lecture Notes in Electrical Engineering** (2010), 201-205
121. Nanostructured silver-based surfaces: new emergent methodologies for an easy detection of analytes  
Staiano M., Matveva E. Rossi, M, Crescenzo r., Iozzino, L., Gryczniski, I., Gryczniski, Z, Sabato D'Auria  
**ACS Appl. Mater. Interfaces**, (2009) 1 (12), 2909–291.
120. Pressure Effects on the structure and stability and of the hyperthermophilic trehalose/maltose-binding protein  
from *Thermococcus litoralis*  
Marchal S., Staiano M, Marabotti A., Vitale A., varriale, A., Lange R., Sabato D'Auria  
**J Phys Chem B.** (2009) 113(38):12804-8.
119. Tumor specific protein human galectin-1-interacts with anticancer agents  
Sabato D'Auria, Petrova L., John C., Russev G., Varriale, A., Bogoeva V  
**Mol. Biosyst.** (2009) 11:1331-6.
118. FCS-based sensing for the detection of ocratoxin A and neomycin in food  
A. Varriale, M. Staiano, L. Iozzino, L. Severino, A. Anastasio, ML Cortesi, Sabato D'Auria  
**Protein Peptide Letters** (2009) 16,12, 1425-1429.
117. Structure and dynamics of cold-adapted enzymes as investigated by phosphorescence spectroscopy and  
molecular dynamics studies. 2. The case of an esterase from *Pseudoalteromonas haloplanktis*"  
Sabato D'Auria, Aurilia V., Marabotti A., Gonnelli M., Strambini G.  
**J Phys Chem B.** (2009) 113(40):13171-8.
116. Structure and stability of a rat odorant-binding protein. Another brick in the wall"  
Scire, A., Marabotti A., Staiano M., Briand L., Varriale A., Bertoli E., Tanfani F., Sabato D'Auria  
**J Proteome Res.** (2009) (8):4005-13.
115. Structure and dynamics of cold-adapted enzymes as investigated by FT-IR Spectroscopy and MD. The Case  
of an Esterase from *Pseudoalteromonas haloplanktis*  
Aurilia V, Rioux-Dubé JF, Marabotti A, Pézolet M, Sabato D'Auria  
**J Phys Chem B.** (2009) 113(22):7753-7761.
114. Wild-type and mutant bovine odorant-binding proteins to probe the role of the quaternary structure  
organization in the protein thermal stability  
Marabotti A, Scirè A, Staiano M, Crescenzo R, Aurilia V, Tanfani F, Sabato D'Auria  
**J Proteome Res.** (2008) (12):5221-9.
113. On the Molecular strategies for protein stabilization. The case of trehalose/maltose-binding protein from  
*Thermus thermophilus*  
A. Scirè, A. Marabotti, V. Aurilia, M. Staiano, P. Ringhieri, L. Iozzino, R. Crescenzo, F. Tanfani, Sabato D'Auria  
**Proteins** (2008) 73(4):839-50.
- 112- Is Asparagine deamidation in the porcine odorant-binding protein related to the odour molecules binding?  
G. Mamone, Sabato D'Auria  
**Protein Peptide Letters** (2008) 15(9):895-9

- 111- Advanced spectroscopy techniques for the detection of gluten in food  
R. Crescenzo, Sabato D'Auria  
**Agro Food Industry High Tech** (2008) 19,2, 14-17
- 110- Nanobeads-based assays. The case of gluten detection  
I. Venditti, M.V. Russo, I. Fratoddi, S. Bellucci, R. Crescenzo, L. Iozzino, M. Staiano, V. Aurilia, A. Varriale, M. Rossi, Sabato D'Auria  
**Journal of Physics Cond Matt** (2008) 20(47):474202-7
- 109- Carbon nanotubes-based biosensors  
Ramoni R., Staiano M., Bellucci S., Gryczynski I., Crescenzo C, Iozzino L., Bharill S., Grolli S, Sabato D'Auria  
**Journal of Physics Cond Matt** (2008) 20(47):474201
- 108- Time-resolved fluorescence spectroscopy and molecular dynamics simulations point out the effects of pressure in the stability and dynamics of the porcine odorant-binding protein.  
Staiano M, Saviano M, Herman P, Gryczynski Z, Fini C, Varriale A, Parracino A, Kold AB, Rossi M, Sabato D'Auria  
**Biopolymers** (2008) 89(4):284-291
- 107- Microbial carbohydrate esterases in cold-adapted environments  
V. Aurilia, A. Parracino, Sabato D'Auria  
**Gene** (2008) 410(2):234-240
- 106- Mink growth hormone structural-functional relationships: effects of renaturing and storage conditions.  
Borromeo V, Sereikaite J, Bumelis VA, Secchi C, Scirè A, Ausili A, Sabato D'Auria, Tanfani F.  
**Protein J.** (2008) 27(3):170-180
- 105- Mutant bovine odorant-binding protein: temperature affects the protein stability and dynamics as revealed by infrared spectroscopy and molecular dynamics simulations  
A. Marabotti, T. Lefreve, M. Staiano, R. Crescenzo, A. Varriale, M. Rossi, M. Pezolet, Sabato D'Auria  
**Proteins** (2008) 72(2):769-778
- 104- The tryptophan phosphorescence of porcine and mutant bovine odorant-binding proteins: a probe for the local protein structure and dynamics  
Sabato D'Auria, M. Staiano, A. Varriale, M. Gonnelli, A. Marabutti, M. Rossi, G. Strambini  
**Journal of Proteome Research** (2008) 7(3):1151-1158
- 103 - The differences in the microenvironment of the two tryptophan residues of the glutamine-binding protein from *Escherichia coli* shed light on the binding properties and the structural dynamics of the protein  
Sabato D'Auria, M. Staiano, A. Varriale, M. Gonnelli, A. Marabotti, M. Rossi, GB. Strambini  
**Proteins** (2008) 71(2):743-750
- 102- Hydrophobic interactions and ionic networks play an important role in thermal stability and denaturation mechanism of the porcine odorant-binding protein  
OV. Stepanenko, A. Marabotti, IM. Kuznetsova, KK. Turoverov, C. Fini, A. Varriale, M. Staiano, Sabato D'Auria  
**Proteins** (2008) 71(1):35-44
- 101- Enzymes and proteins from extremophiles as hyperstable probes in nanotechnology: the use of D-trehalose/D-maltose-binding protein from the hyperthermophilic archaeon *Thermococcus litoralis* for sugars monitoring.  
L. De Stefano, A. Vitale, I. Rea, M. Staiano, L. Rotiroti, T. Labella, I. Rendina, V. Aurilia, Mose' Rossi, Sabato D'Auria  
**Extremophiles** (2008) 12(1):69-73
- 100- A strategic fluorescence labelling of D-galactose/D-glucose-binding protein from E. coli helps to shed light on the protein structural stability and dynamics  
V. Scognamiglio, A. Scire, V. Aurilia, M. Staiano, R. Crescenzo, C. Palmucci, E. Bertoli, M. Rossi, F. Tanfani, Sabato D'Auria  
**Journal Proteome Research** (2007) 6(11):4119-4126
- 99- Stability and dynamics of the porcine odorant-binding protein  
M. Staiano, Sabato D'Auria, A. Varriale, M. Rossi, A. Marabotti, C. Fini, O. Stepanenko, IM Kuznetsova, KK Turoverov  
**Biochemistry** (2007) 2;46(39):11120-7

98- High-affinity binding of cadmium ions by mouse metallothionein prompting the design of a reversed-displacement protein-based fluorescence biosensor for cadmium detection

A. Varriale, M. Staiano, M. Rossi, [Sabato D'Auria](#)

**Analytical Chemistry** (2007) 79(15):5760-2

97- Fluorescence correlation spectroscopy assay for gliadin in food.

A. Varriale, M. Rossi, M. Staiano, E. Terpetschnig, B. Barbieri, M. Rossi, [Sabato D'Auria](#)

**Analytical Chemistry** (2007) 79(12):4687-9

96- Temperature modulates selectivity and affinity binding properties of the D-trehalose/D-glucose-binding protein from the hyperthermophilic archaeon *Thermococcus litoralis*.

P. Herman, I. Barvik (Jr.), M. Staiano, A. Vitale, J. Vecer, M. Rossi, [Sabato D'Auria](#)

**BBA Proteins and Proteomics** (2007) 1774(5):540-4

95- Tryptophan Phosphorescence studies allow a molecular portrait of the D-galactose/D-glucose-binding protein

[Sabato D'Auria](#), A. Varriale, M. Gonnelli, M. Saviano, M. Staiano, M. Rossi, GB. Strambini

**Journal of Proteome Research** (2007) (4):1306-12

94- Advanced nanotechnological approaches for designing new protein-based "Lab-on-Chips" on porous silicon wafer

S. Borini, M. Staiano, M. Rocchia, A.M. Rossi, M. Rossi, [Sabato D'Auria](#)

**Recent Patents on DNA & Genes** (2007) 1, 1-7

93- New emergent nanotechnologies in medical and biochemical applications: advanced fluorescence protein-based nanosensors

M. Staiano, M. de Champdoré, S. Borini, A.M. Rossi, M. Rossi, [Sabato D'Auria](#)

**Current Chemical Biology** (2007) 1, 3-9

92- Advanced biotechnological applications of proteins isolated from extremophiles

M. de Champdoré, M. Staiano, M. Rossi, [Sabato D'Auria](#)

**Journal of Royal Society Interface** (2007) 4(13):183-91

91- A new fluorescence competitive assay for the detection of patulin toxin.

M. de Champdoré, P. Bazzicalupo, L. De Napoli, D. Montesarchio, G. di Fabio, I. Coccozza, A. Parracino, M. Rossi, [Sabato D'Auria](#)

**Analytical Chemistry** (2007) 79(2):751-7

90- The psychrophilic bacterium *Pseudoalteromonas halosplanktis* TAC125 possesses a gene coding for a cold-adapted feruloyl esterase activity that shares homology with esterase enzymes from  $\gamma$ -proteobacteria and yeast.

V. Aurilia, A. Parracino, M. Saviano, M. Rossi, [Sabato D'Auria](#)

**Gene** (2007) 397(1-2):51-7

89- Molecular adaptation strategies to high temperature and thermal denaturation mechanism of the D-trehalose/D-maltose-binding protein from the hyperthermophilic archaeon *Thermococcus litoralis*

D. Fessas, M. Staiano, A. Barbiroli, A. Marabotti, A. Schiraldi, A. Varriale, M. Rossi, [Sabato D'Auria](#)

**Proteins** (2007) 67(4):1002-9

88- Confocal imaging of protein distribution in porous silicon optical structures

L. De Stefano, [Sabato D'Auria](#)

**Journal Optical Physics Solid Matter** (2007) 19 No 39 (3 October 2007) 395009 (7pp)

87- The protein scaffold of the lipocalin odorant-binding protein is suitable for the development of biosensors for the detection of explosive components.

Ramoni R, Bellucci S, Gryczynski I, Gryczynski Z, Grolli S, Staiano M, Giannini G, Micciulla F, Pastore R, Tiberia A, Conti V, Merli E, Varriale A, Rossi M, [Sabato D'Auria](#)

**Journal Optical Physics Solid Matter** (2007) 19 No 39 (3 October 2007) 395012 (7pp)

86- Biochips at work: porous silicon microbiosensor for proteomic diagnostic

L. De Stefano, I. Rendina, A.M. Rossi, M. Rossi, L. Rotoroti, [Sabato D'Auria](#)

**Journal Optical Physics Solid Matter** (2007) 19 No 39 (3 October 2007) 395007 (5pp)

- 85- Porous silicon-based optical microsensor for the detection of L-Glutamine  
L. De Stefano, L. Rotiroti, I. Rendina, L. Moretti, V. Scognamiglio, M. Rossi, [Sabato D'Auria](#)  
**Biosensors Bioelectronics**. 2006 ;21(8):1664-7
- 84- Exploring the cupin-type metal-coordinating signature of acetylacetonate dioxygenase Dke1 with site-directed mutagenesis: catalytic reaction profile and Fe<sup>2+</sup> binding stability of Glu-69→Gln mutant.  
G. D. Straganz, S. Egger, G. Aquino, [Sabato D'Auria](#), B. Nidetzky  
**Journal Molecular Catalysis: Enzymatic** (2006), 39, 171-178
- 83- Thermostable proteins as probe for the design of advanced fluorescence biosensor  
M. de Champdore', M. Staiano, V. Aurilia, O. Stepanenko, A. Parracino, M. Rossi, [Sabato D'Auria](#)  
**Reviews in Environ Science/Biotechnology** (2006) DOI 10.1007/s11157-006
- 82- Resonant cavity enhanced optical microsensor for molecular interactions based on porous silicon  
L. De Stefano, L. Rotiroti, I. Rendina, M. Rossi, [Sabato D'Auria](#)  
**Physica Status Solidi (a)** (2006)1, 1-6
- 81- Nanostructured silicon-based biosensors for the selective identification of analytes of social interest  
[Sabato D'Auria](#), M. deChampdore', M. Staiano, V. Aurilia, A. Vitale, A. Parracino, M. Rossi, L. Rotiroti, I. Rea, I. Rendine, L. De Stefano  
**Journal Optical Physics Solid Matter** (2006),18, 2019-2028
- 80- Pressure affects the structure and the dynamics of the D-galactose/D-glucose-binding protein from *Escherichia coli* by perturbing the C-terminal domain of the protein  
A. Marabotti, A. Ausili, M. Staiano, A. Scire, F. Tanfani, A. Parracino, a. Variale, M. Rossi, [Sabato D'Auria](#)  
**Biochemistry** (2006) 45, 11885-11889
- 79- Glutamine-binding protein from *Escherichia coli* specifically binds a wheat gliadin peptide allowing the design of a new porous silicon-based optical biosensor.  
De Stefano L, Rossi M, Staiano M, Mamone G, Parracino A, Rotiroti L, Rendina I, Rossi M, [Sabato D'Auria](#)  
**J Proteome Res.** (2006) (5):1241-5
- 78- Glutamine-binding protein from *Escherichia coli* specifically binds a wheat gliadin Peptide. 2. Resonance energy transfer studies suggest a new sensing approach for an easy detection of wheat gliadine  
Staiano M, Scognamiglio V, Mamone G, Rossi M, Parracino A, Rossi M, [Sabato D'Auria](#)  
**J Proteome Res.** (2006) (9):2083-6
- 77- D-Trehalose/D-maltose-binding protein from the hyperthermophilic archaeon *Thermococcus litoralis*: the binding of trehalose and maltose results in different protein conformational states.  
Herman P, Staiano M, Marabotti A, Varriale A, Scire A, Tanfani F, Vecer J, Rossi M, [Sabato D'Auria](#)  
**Proteins** (2006) Jun 1;63(4):754-67
- 76- Structure/function of KRAB repression domains: structural properties of KRAB modules inferred from hydrodynamic, spectroscopic and FTIR analyses  
R. Mannini, V. Riviuccio, [Sabato D'Auria](#), F. Tanfani, A. Ausili, A. Facchiano, C. Pedone, G. Grimaldi  
**Proteins** (2006) 62(3):604-16
- 75- Pressure effects on the stability and conformational dynamics of the D-galactose-D-glucose-binding protein from *E. coli*  
A. Marabotti, P. Herman, M. Staiano, M. De champdore', A. Varriale, Z. Gryczniski, M. Rossi, [Sabato D'Auria](#)  
**Proteins** (2006) 62(1):193-201
- 74- Odor-binding protein as probe for a refractive index-based biosensor: new perspectives in biohazard assessment.  
[Sabato D'Auria](#), M. Staiano, V. Scognamiglio, M. Rossi, S. Campopiano, N. Cennamo, L. Zeni  
**Proteins Peptide Letters** (2006);13(4):349-52
- 73- Binding of glucose to the D-galactose/D-glucose-binding protein from *Escherichia coli* restores the native protein secondary structure and the thermostability that are lost upon calcium depletion  
[Sabato D'Auria](#), A. Ausili, A. Varriale, V. Scognamiglio, M. Staiano, E. Bertoli, M. Rossi, F. Tanfani  
**J. Biochem** (2006) Feb;139(2):213-21

- 72- The binding of glutamine to the glutamine-binding protein from *Escherichia coli* induces changes in the protein structure and increases the protein stability  
Sabato D'Auria, A. Scirè, A. Varriale, V. Scognamiglio, M. Staiano, A. Ausili, M. Rossi, F. Tanfani  
**Proteins** (2005) 58, 80-87
- 71- Expression, purification and partial characterization of the Kruppel-associated box (KRAB) from the human ZNF2  
V. Rivieccio, R. Mannini, L. Concilio, Sabato D'Auria, C. Pedone, G. Grimaldi  
**Protein Peptide Letters** (2005) 58, 80-87
- 70- The combined use of fluorescence spectroscopy and X-ray crystallography greatly contributes to elucidating structure and dynamics of proteins  
Sabato D'Auria, M. Staiano, IM Kuznetsova, K K. Turoverov  
**Annual Reviews Fluorescence Spectroscopy** (2005) 2, 25-61
- 69- Intrinsic fluorescence properties of glutamine-binding protein from *Escherichia coli* and its complex with glutamine. Tryptophan and tyrosine residues location, characteristics of their microenvironment and contribution to the bulk fluorescence of the protein.  
I.M. Kuznetsova, O.V. Stepanenko, K.K. Turoverov M. Staiano, V. Scognamiglio, M. Rossi, Sabato D'Auria  
**Journal Proteome Research** (2005) 2:417-23
- 68- Unfolding-Refolding of the glutamine-binding protein from *Escherichia coli* and its complex with glutamine induced by GdnHCl: Equilibrium and kinetic studies.  
M. Staiano, V. Scognamiglio, M. Rossi, Sabato D'Auria, Kuznetsova I.M., Stepanenko Olga V., Turoverov KK  
**Biochemistry** (2005) 44(15):5625-33
- 67- Structural and thermal stability of the calcium-depleted D-galactose/D-glucose-binding protein from *Escherichia coli*  
P. Herman, J. Vecer, I. Barvik (Jr.), V. Scognamiglio, A. Varriale, M. Staiano, M. Rossi, Sabato D'Auria  
**Proteins** (2005)1;61(1):184-95
- 66- Writing 3D protein nanopatterns onto a silicon nanosponge  
S. Borini, Sabato D'Auria, M. Rossi, A. M. Rossi  
**Lab-on-a-Chip** (2005) (10):1048-52
- 65- Advanced protein-based biosensors: glucose biosensors as a model for analyses of high social interest  
M. Staiano, P. Bazzicalupo, M. Rossi, Sabato D'Auria  
**Mol. BioSystems** (2005);1(5-6):354-62.
- 64- The structure and stability of the glutamine-binding protein from *Escherichia coli* and its complex with glutamine  
Stepanenko OV, Kuznetsova IM, Turoverov KK, Scognamiglio V, Staiano M, Sabato D'Auria.  
**Tsitologija.** (2005);47(11):988-1006
- 63- Stability and structural characterization of the galactose/glucose-binding protein from *E. coli*.  
Sabato D'Auria, F. Alfieri, M. Staiano, F. Pelella, A. Scire, F. Tanfani, M. Rossi, Z. Gryczniski, J.R. Lakowicz  
**Biotechnology Progress** (2004) 6;20(1):330-337
- 62- Theoretical model of the three-dimensional structure of a sugar binding protein from *Pyrococcus horikoshii*: structural analysis and sugar binding simulations  
A. Marabotti, Sabato D'Auria, M. Rossi, AM Facchiano  
**Biochem J.** (2004);380(Pt 3):677-84
- 61- Conformational stability and domain coupling in galactose/glucose-binding protein from *Escherichia coli*.  
G. Piszcheck, Sabato D'Auria, M. Staiano, M. Rossi, A. Ginsburg  
**Biochem J.** (2004);381(Pt 1):97-103
- 60- Protein-based biosensors for diabetic patients  
V. Scognamiglio, M. Staiano, M. Rossi, Sabato D'Auria  
**Journal of Fluorescence** (2004) 14,5,491-498
- 59- A Recombinant glutamine-binding protein from *Escherichia coli*: Effect of the ligand-binding on the protein conformational dynamics.  
P. Herman, J. Vecer, V. Scognamiglio, M. Staiano, M. Rossi, Sabato D'Auria  
**Biotechnology Progress** (2004) 20,1847-1854

- 58- A putative thermostable sugar-binding protein from the archaeon *Pyrococcus horikoshii* as a probe for the development of a fluorescence biosensor for diabetic patients.  
M. Staiano, MR Sapio, V. Scognamiglio, A. Marabotti, AM Facchiano, P. Bazzicalupo, M. Rossi, Sabato D'Auria  
**Biotechnology Progress** (2004) 5:1572-7
- 57- Release of the self-quenching of fluorescence near silver metallic surfaces.  
J.R. Lakowicz, J. Malicka, Sabato D'Auria, Grycznyski, I.  
**Analytical Biochem** (2003) 320, 13-20
- 56- Effects of metallic silver Particle on resonance energy transfer between fluorophores bound to DNA.  
JR Lakowicz, Y. Shen, J. Malicka, Sabato D'Auria, Z. Grycznyski, I. Grycznyski.  
**Journal of Fluorescence** (2003)13, 69-79
- 55- Fluorescence of proteins, an editorial overview.  
Sabato D'Auria  
**Journal of Fluorescence** (2003)13,1
- 54- Stability and conformational dynamics of metallothioneins from the Antarctic fish *Notothenia coriiceps* and mouse.  
C. Capasso, O. Abugo, F. Tanfani, A. Scire', V. Carginale, E. Parisi, Sabato D'Auria  
**Proteins Structure Function Genetics** (2002) 46,3, 259-267
- 53- Radiative Decay Engineering  
JR Lakowicz, Y. Shen, Sabato D'Auria, J. Malicka, Z. Grycznyski, I. Grycznyski  
**Anal. Biochem.** (2002) 301(2):261-277
- 52- A novel fluorescence competitive assay for glucose determinations by using a thermostable glucokinase from the thermophilic microorganism *Bacillus Stearothermophilus*.  
Sabato D'Auria, N. DiCesare, M. Staiano, Z. Grycznyski, M. Rossi, JR Lakowicz  
**Anal Biochem.** (2002) 303 (2):138-44
- 51- Structural properties of cytosolic human glyoxalase ii in the absence and in the presence of phospholipid membranes  
A. Scirè, F. Saccucci, E. Bertoli, MT Cambria, Sabato D'Auria, G. Principato, F. Tanfani  
**Proteins Structure Function Genetics** (2002) 48 1:126-33
- 50- Structural characterization and thermal stability of *Notothenia coriiceps* metallothionein.  
Sabato D'Auria, V. Carginale, R. Scudiero, E. Parisi, C. Capasso  
**Biochemical Journal** (2001) 354, 291-299
- 49- Enzyme fluorescence as a sensing tool: new perspectives in biotechnology.  
Sabato D'Auria, JR Lakowicz  
**Curr. Opinions in Biotechnol.** (2001) 12,1, 99-104
- 48- On the effect of SDS on the conformational dynamics of  $\beta$ -galactosidase from *E. coli*.  
Sabato D'Auria, N. Di Cesare, I. Grycznyski, JR Lakowicz, M. Rossi.  
**J. Biochemistry** (2001) 130, 13-18
- 47- Intrinsic fluorescence from DNA can be enhanced by metallic particles  
JR Lakowicz, B. Shen, Z. Grycznyski, Sabato D'Auria, I. Grycznyski  
**Biochem. Biophys. Res. Commun.** (2001) 286,5, 875-879
- 46- Oxyanion-mediated protein stabilization: differential roles of phosphates for preventing inactivation of bacterial  $\alpha$ -glucan phosphorylases.  
R. Griebler, M. Pickl, Sabato D'Auria, F. Tanfani, B. Nidetzky  
**Biocatalysis and Biotransformation** (2001) 19, 5-6,379-398
- 45- Mass spectrometry study of 5'-ecto-nucleotidase from bull seminal plasma.  
C. Fini, A. Amoresano, A. Andolfo, Sabato D'Auria, A. Floridi, S. Paolini, P. Pucci.  
**Eur J Biochem.** (2000) 267, 4978-4987



- 44- Conformational dynamics of ASCUT-1 from *Ascaris lumbricoides*.  
Sabato D'Auria, P. Bazzicalupo, M. Rossi, I. Gryczynski, JR. Lakowicz.  
**J. Fluorescence** (2000) 10, 1, 27-35
- 43- Stability and conformational dynamics of the esterase from *Archaeoglobus fulgidus*.  
Sabato D'Auria, P. Herman, J.R. Lakowicz, E. Bertoli, F. Tanfani, M. Rossi, G. Manco.  
**Proteins Structure, Function, Genetics** (2000) 38, 351-360
- 42- Pyruvate kinase from the thermophilic eubacterium *Bacillus acidocaldarius* as probe to monitor the concentration of sodium in the blood.  
Sabato D'Auria, M. Rossi, P. Hermann, JR. Lakowicz.  
**Biophys. Chemistry** (2000) 84, 167-176
- 41- Mechanism of thermal denaturation of maltodextrin-phosphorylase from *Escherichia coli*.  
R. Griebler, Sabato D'Auria, F. Tanfani, B. Nidetzky.  
**Biochem J.** (2000) 346 Pt 2:255-63
- 40- Cloning, overexpression and properties of a new thermophilic and thermostable esterase with sequence similarity to hormone sensitive lipase subfamily from the archaeon *Archaeoglobus fulgidus*.  
G. Manco, E. Giosue', Sabato D'Auria, P. Herman, G. Carrea, M. Rossi  
**Arch Biochem Biophys** (2000) 373, 182-92
- 39- Conformational transitions of beta-glycosidase from the hyperthermophilic Archaeon *Sulfolobus solfataricus* expressed in *E. coli* studied by spin and fluorescence labeling methods.  
Shames R. Nucci, Sabato D'Auria, F. Febbraio, C. Vaccaro, E. Loznisky, M. Rossi, G. Lichtenstein.  
**Applied Magn. Resonance** (2000) 18, 515-526
- 38- The esterase from the moderate thermophilic eubacterium *Bacillus acidocaldarius*: structure and dynamics at high temperatures, and comparison with the esterase from the hyperthermophilic archaeon *Archaeoglobus fulgidus*.  
Sabato D'Auria, P. Herman, J.R. Lakowicz, F. Tanfani, E. Bertoli, G. Manco, M. Rossi  
**Proteins Structure, Function, Genetics**, (2000) 40, 473-481
- 37- Interaction of starch phosphorylase from *Corynebacterium callunae* provides extremely efficient stabilization of protein structure against thermal denaturation.  
R. Griebler, Sabato D'Auria, F. Tanfani, B. Nidetzky.  
**Protein Science** (2000) 9, 6, 1149-61
- 36- A Protein biosensor for lactate  
Sabato D'Auria, M. Rossi, I. Gryczynski, Z. Gryczynski, JR. Lakowicz  
**Anal. Biochem.** (2000) 283,83-88
- 35- A thermophilic apo-glucose dehydrogenase as non-consuming glucose sensor.  
Sabato D'Auria, N. Di Cesare, Z. Gryczynski, I. Gryczynski, M. Rossi, JR Lakowicz  
**Biochem Biophys Res. Commun.** (2000) 274, 727-731
- 34- Different effects of microwave energy and conventional heat on the activity of a thermophilic  $\beta$ -galactosidase from *Bacillus acidocaldarius*.  
F. La Cara, M.R. Scarfi', Sabato D'Auria, G. d'Ambrosio, G. Franceschetti, M. Rossi, M. De Rosa.  
**Bioelectromagnetics** (1999) 20(3): 172-176
- 33- Purification and characterization of a lipoxygenase enzyme from durum wheat semolina.  
R. Barone, R. Briante, Sabato D'Auria, F. Febbraio, L. Del Giudice, C. Borrelli, R. Nucci.  
**J. Agric Food Chemistry** (1999) 47, 5, 1924-1931
- 32- Microwave exposure effect on a thermophilic alcohol dehydrogenase.  
F. La Cara, Sabato D'Auria, M.R. Scarfi', O. Zeni, R. Massa, G. d'Ambrosio, G. Franceschetti, M. Rossi.  
**Protein Peptide Letters** (1999) 6,3,155-162
- 31- The  $\beta$ -glycosidase from the Archaeon *Sulfolobus solfataricus*: structure and activity in the presence of alcohol.  
Sabato D'Auria, R. Nucci, M. Rossi, I. Gryczynski, H. Malak, JR. Lakowicz  
**J. Biochemistry** (1999) 126,3,545-552

30- The  $\beta$ -glycosidase from the archaeon *Sulfolobus solfataricus*: Structure and conformational dynamics above 100°C.

Sabato D'Auria, R. Nucci, M. Rossi, I. Grycznisky, Z. Grycznisky, JR Lakowicz  
**Biophys. Chemistry** (1999) 81,23-31

29- The fluorescence emission of the apo-glucose oxidase from *Aspergillus niger* as probe to estimate glucose concentrations.

Sabato D'Auria, P. Herman, M. Rossi, J.R. Lakowicz  
**Biochemical Biophysical Research Communications** (1999) 263,2,550-553

28- Temperature effects on the structural and functional properties of membrane-bound and soluble Bull seminal plasma 5'-Nucleotidases.

C. Fini, M. Coli, A. Floridi, Sabato D'Auria, M. Staiano, R. Nucci, M. Rossi.  
**J. Biochemistry** (1998) 123, 269-274

27- Structural analysis of recombinant ASCUT-1, a protein component of the cuticle of the *Ascaris lumbricoides*.

Sabato D'Auria, M. Rossi, F. Tanfani, E. Bertoli, G. Parise, P. Bazzicalupo  
**Eur. J. Biochem** (1998) 255, 588-594

26- Guanidine-induced denaturation of  $\beta$ -glycosidase from *Sulfolobus solfataricus* expressed in *Escherichia coli*.

F. Catanzano, G. Graziano, B. De Paola, G. Barone, Sabato D'Auria, M. Rossi, R. Nucci  
**Biochemistry** (1998) 37, 14484-14490

25- Structure-function studies on  $\beta$ -glycosidase from *Sulfolobus solfataricus*. Molecular bases of thermostability.

Sabato D'Auria, M. Moracci, F. Febbraio, F. Tanfani, R. Nucci, M. Rossi.  
**Biochimie** (1998) 80,949-957

24- Multitryptophan-fluorescence-emission decay of  $\beta$ -glycosidase from the extremely thermophilic archaeon *Sulfolobus solfataricus*.

E. Bismuto, G. Irace, Sabato D'Auria, M. Rossi, R. Nucci.  
**European Journal of Biochemistry** (1997) 244, 53-58

23- Effect of SDS, temperature and pH on the structural features of  $\beta$ -glycosidase from archaeon *Sulfolobus solfataricus*.

Sabato D'Auria, R. Barone, M. Rossi, R. Nucci, G. Barone, D. Fessas, E. Bertoli, F. Tanfani.  
**Biochemical Journal** (1997) 323, 833-840

22- Perturbation of conformational dynamics, enzymatic activity and thermostability of  $\beta$ -glycosidase from archaeon *Sulfolobus solfataricus* by pH and sodium dodecyl sulfate detergent.

Sabato D'Auria, M. Rossi, R. Nucci, G. Irace, E. Bismuto.  
**Proteins Structure Function Genetics** (1997) 27, 71-79

21- Identification of the active site nucleophile in the thermostable  $\beta$ -glycosidase from *Sulfolobus solfataricus* expressed in *E. coli*.

F. Febbraio, R. Barone, Sabato D'Auria, M. Rossi, R. Nucci, G. Piccialli, L. De Napoli, S. Orru, P. Pucci.  
**Biochemistry** (1997) 36, 11, 3068-3075

20- Temperature Effect on the Structural Features of  $\beta$ -glycosidase from *Sulfolobus solfataricus*: An Infrared Study.

Sabato D'Auria, M. Rossi, R. Nucci, E. Bertoli, F. Tanfani.  
**Protein and Peptide Letters** (1997) 4,2, 123-130

19- Purification and characterization of *Sulfolobus solfataricus*  $\beta$ -glycosidase expressed in *Saccharomyces cerevisiae*.

Sabato D'Auria, A. Morana, F. Febbraio, C. Vaccaro, M. De Rosa, R. Nucci.  
**Protein Expression and Purification** (1996) 7, 299-308

18. Immobilization on chitosan of a thermophilic  $\beta$ -glycosidase expressed in *Saccharomyces cerevisiae*.

Sabato D'Auria, F. Pellino, F. La Cara, R. Barone, M. Rossi, R. Nucci.  
**Applied Biochemistry and Biotechnology** (1996) 61, 157-166

17. Temperature induced denaturation of a  $\beta$ -glycosidase from the archaeobacterium *Sulfolobus solfataricus*.

Sabato D'Auria, M. Rossi, R. Nucci, G. Barone, F. Catanzano, P. Del Vecchio, G. Graziano.  
**J. Biochemistry** (1996) 120, 292-300

- 16- A Thermophilic NAD-dependent alcohol dehydrogenase from *Bacillus acidocaldarius* not reactive towards ketones.  
Sabato D'Auria, F. La Cara, F. Nazzaro, N. Vespa, M. Rossi.  
**J. Biochemistry** (1996) 120, 498-504
- 15- Characterization of redox proteins from extreme thermophilic archaeobacteria: Studies on alcohol dehydrogenase and thioredoxins.  
C.A. Raia, Sabato D'Auria, A. Guagliardi, S. Bartolucci, M. De Rosa, M. Rossi.  
**Biosensor and Bioelectronics** (1995) 10, 135-140
- 14- A thermostable  $\beta$ -glycosidase from *Sulfolobus solfataricus*: Temperature and SDS effects on its functional and structural properties.  
R. Nucci, Sabato D'Auria, F. Febbraio, C. Vaccaro, A. Morana, M. De Rosa, M. Rossi.  
**Biotechnology and Applied Biochemistry** (1995) 21, 135-145
- 13- Elimination of twinning in crystals of *Sulfolobus solfataricus* alcohol dehydrogenase holoenzyme by growth in agarose gels.  
F. Sica, D. Demasi, L. Mazzarella, A. Zagari, S. Capasso, L.H. Pearl, Sabato D'Auria, C.A. Raia, M. Rossi.  
**Acta Crystallographica** (1994) 50, 508-511
- 12- NAD-dependent alcohol dehydrogenase from *Sulfolobus solfataricus*: Structural and functional features.  
C.A. Raia, Sabato D'Auria, M. Rossi.  
**Biocatalysis** (1994) 11, 143-150
- 11- *Sulfolobus solfataricus* alcohol dehydrogenase. Structural and functional relationships to other alcohol dehydrogenases.  
C.A. Raia, Sabato D'Auria, V. Carratore, N. Vespa., M. Rossi.  
**The Italian Journal of Biochemistry** (1994) 43, 164-165
- 10- Reversible inhibition studies on the beta-glycosidase from *Sulfolobus solfataricus*.  
F. Febbraio, Sabato D'Auria, C. Vaccaro, M. Rossi, R. Nucci.  
**The Italian Journal of Biochemistry** (1994) 43, 201-202
- 9- Crystallization and preliminary X-ray analysis of an NAD-dependent alcohol dehydrogenase from the extreme thermophilic archaeobacterium *Sulfolobus solfataricus*.  
L.H. Pearl, D. Demasi, A.M. Hemmings, F. Sica, L. Mazzarella, C.A. Raia, Sabato D'Auria, M. Rossi.  
**Journal of Molecular Biology** (1993) 229, 782-784
- 8- Thermostable NAD-dependent alcohol dehydrogenase from *Sulfolobus solfataricus*: Gene and protein sequence determination and relationship to other alcohol dehydrogenases.  
S. Ammendola, C.A. Raia, C. Caruso, L. Camardella, Sabato D'Auria, M. De Rosa and M. Rossi.  
**Biochemistry** (1992) 31, 12514-12523
- 7- Purification and characterization of a thermostable carboxypeptidase from the extreme thermophilic archaeobacterium *Sulfolobus solfataricus*.  
S. Colombo, Sabato D'Auria, P. Fusi, L. Zecca, C.A. Raia, P. Tortora.  
**Eur. Journal Biochemistry** (1992) 206, 349-357
- 6- Patchy expression of lactase protein in adult rabbit and rat intestine  
L. Maiuri, M. Rossi, V. Raia, Sabato D'Auria, D. Swallow, A. Quaroni and S. Auricchio.  
**Gastroenterology** (1992) 103, 1739-1746
- 5- Coenzymatic properties of macromolecular derivatives of NAD and NADP with two thermostable dehydrogenases from the archaeobacterium *Sulfolobus solfataricus*.  
A. Guagliardi, C.A. Raia, R. Rella, AF Buckmann, Sabato D'Auria, M. Rossi, S. Bartolucci.  
**Biotechnology and Applied Biochemistry** (1991) 13, 25-35
- 4- Purification and properties of a thermophilic and thermostable DNA polymerase from the archaeobacterium *Sulfolobus solfataricus*.  
R. Rella, C.A. Raia, FM Pisani, Sabato D'Auria, R. Nucci, A. Gambacorta, M. De Rosa and M. Rossi.  
**The Italian Journal of Biochemistry** (1990) 39, 83-99

3- Determination of hybrid transfer stereospecificity of NADH dependent alcohol aldehyde ketone oxidoreductase from *Sulfolobus solfataricus*.

A. Trincone, L. Lama, R. Rella, Sabato D'Auria, C.A. Raia and B. Nicolaus.

**Biochimica Biophysica Acta** (1990) 1041, 94-96

2- A possible role of zinc ions in alcohol dehydrogenase from *Sulfolobus solfataricus*.

C.A. Raia, Sabato D'Auria, R. Rella, FM Pisani, C. Vaccaro and M. Rossi.

**The Italian Journal of Biochemistry** (1988) 37, 325-326

1- Preproenkephalin mRNA in Neuroblastoma x Glioma, NG 108-15, hybrid cells and in parental cell lines: Mouse Neuroblastoma, N18, and Rat Glioma, C6.

A. Palmisano, Sabato D'Auria, G. Sannia, G. Marino and G. Tocco.

**Neuropeptides** (1987) 10, 321-327

### **Protein Structure Deposited in Data Bank**

Structure of the arginine-bound form of truncated (residues 20-233) ArgBP from *T. maritima*

G. Smaldone, R. Berisio, N. Balasco, Sabato D'Auria, L. Vitagliano, A. Ruggiero

(2018) ID: D\_1200009842 and PDB ID: 6GGV -

### **Book chapters and Invited Contributions**

Environmental monitoring exploiting optical fiber biosensors. The case of naphthalene detection in water

Cennamo, N., Zeni, L., Ricca, E., Isticato, R., Marzullo, V.M., Capo, A., Staiano, M., Sabato D'Auria, Varriale, A.

**Lecture Notes in Electrical Engineering**, (2020) 629,65-69. DOI: 10.1007/978-3-030-37558-4\_10

Food 4 Future & Future 4 Food

M. Padula, E. Punta, A. Volpi, Sabato D'Auria

**CNR Publisher** (2016) - ISBN 972 88 8080 209 9

Experimental demonstration of integrated photonic free-label biosensor for CBRN threats using micro-ring resonators

Nicola Peserico, Andrea Annoni, Antonio Varriale, Sabato D'Auria, Laurent Bellieres, Francisco Cuesta-Soto, Manuel Rodrigo, Sergio Peransi, Andrea Melloni

**Transparent Optical Networks (ICTON)** (2016) 1-4. IEEE Editor

A new optical method for a fast and simple detection of Ephedrine

Antonio Varriale, Maria Staiano, Maria Strianese, Vincenzo Marzullo, Giuseppe Ruggiero, Alberto Secchi, Massimiliano Dispenza, Anna Maria Fiorello, Sabato D'Auria

**SPIE Security+ Defence** (2011) 81890M-81890M-6

Direct writing of a protein microarray: lab-on-a-chip for multipurpose sensing

M. Rocchia, S. Borini, A.M. Rossi, M. Rossi, Sabato D'Auria

**Ultrasensitive and SingleMolecule Detection Technologies II**

Proc SPIE (2007) Vol. 6444, doi: 10.1117/12.697923

Proteins from extremophiles as probes for advanced fluorescence biosensors for analyses of high social interest.

M. Staiano, V. Scognamiglio, V. Aurilia, A. Parracino, A. Varriale, M. deChampodorè, A. Vitale, G. Aquino, M. Rossi, Sabato D'Auria

**Proceedings of the International Symposium on Extremophiles and their applications ISEA** (2007) 302-309

Advanced Fluorescence Biosensors for Diabetic patients

Sabato D'Auria, V. Scognamiglio, M. De Champdore', M. Staiano, G. Ghirlanda, M. Rossi

**Topics in Fluorescence Spectroscopy** (2005) Vol 10, Plenum Press, New York, USA

Odor binding protein as probe for a refractive index-based biosensor: new perspectives in biohazard assessment.

Sabato D'Auria, V. Scognamiglio, M. Staiano, M. Rossi, S. Campopiano, N. Cennamo, L. Zeni.

**Advances in Fluorescence Sensing Technology**, (2004) Lakowicz JR and Thompson R.B. Editors.

DNA arrays in genetic and medical applications.

Sabato D'Auria, M. Rossi, J. Malica, Z. Gryczynski, I. Gryczynski.

**Topics in Fluorescence Spectroscopy**, (2003) Vol. 7, DNA Technology, Plenum Press, New York, USA

Fluorescence spectral engineering. Biophysical and biomedical applications.

J.R. Lakowicz, Y. Shen, Sabato D'Auria, J. Malicka, Z. Gryczynski, I. Gryczynski

**Fluorescence Spectroscopy, Imaging and Probes: New Tools in Chemical, Physical and Life Sciences** (2002) pp 43-68

Kraayenhof, R., *Vrije Universiteit, Amsterdam, The Netherlands*; Visser, A. J.W.G., *University of Wageningen, The Netherlands*; Gerritsen, H. C., *University of Utrecht, The Netherlands* (Eds.) Springer-Verlag Heidelberg

Radiative decay engineering: Biomedical applications.

J.R. Lakowicz, Y. Shen, **Sabato D'Auria**, J. Malicka, I. Gryczynski, Z. Gryczynski.

**SPIE, Vol.4626 Tools for molecular analysis and high throughput screening**. 4626-84. January (2002) 19-25, San Jose', California, USA

Glucose-sensing proteins from mesophilic and thermophilic bacteria as new tool in diabetes monitoring

Sabato D'Auria, M. Rossi, J. R. Lakowicz.

**Advances in Fluorescence Sensing Technology** Vol.V, Lakowicz JR and Thompson R.B. Editors (2001) Vol. 4252, 21-31.

Fluorescence of extreme thermophilic proteins.

Sabato D'Auria, M. Rossi, I. Gryczynski, J.R. Lakowicz.

**Topics in Fluorescence Spectroscopy**, (2000) Vol. VI, 12, 285-306, JR Lakowicz Ed, Kluwer Ny, USA

Enzymes act as non-consuming substrate sensors

Sabato D'Auria

**Sensor Technology Alert** September 1st, 2000, John Wiley & Sons, Inc USA.

Alcohol Dehydrogenase

Sabato D'Auria

**Handbook of Food Enzymology** (2003) J Withaker Editor, Decker, New York, USA

Protein-based fluorescence sensors of glucose, lactose, and glutamine.

J. R. Lakowicz, L. Tolosa, J. D. Dattelbaum, Sabato D'Auria

**Advances in Fluorescence Sensing Technology** V Conference 4252Conv. Ctr: A5 Wednesday-Thursday 24-25 January (2001) *Proceedings of SPIE* Vol. 4252.

Influence of microwave radiation on the deactivation process of thermophilic enzymes.

F. d'Ambrosio, Sabato D'Auria, M. De Rosa, G. Franceschetti, F. La Cara, R. Massa, M. Rossi, M.R. Scarfi', O. Zeni.

**Microwave and High Frequency Heating** Editors A. Breccia, R. De Leo, AC Metaxas, (1997) 377-380.

Stability and stabilization of  $\alpha$ -1,4-D-glucan phosphorylases.

R. Griebler, B. Muller, Sabato D'Auria, F. La Cara, B. Nidetzky.

**Stability and Stabilization of Biocatalysts**, (1997) A. Ballesteros, FJ. Plou, JL Iborra, PJ. Halling, Editors, Elsevier, New York.

### **Articles published in Italian Journals without review process**

Design and development of advanced nanosensors and nanochips for human health and food safety

M. Staiano, V. Aurilia, T. Labella, P. Orlando, M. Rossi, Sabato D'Auria

**Nanotec IT**, (2007) 8, 21-24

Le nanotecnologie in campo diagnostico al servizio dei diabetici e dei celiaci

M. Rossi, M. Staiano, A. Parracino, V. Aurilia, M. de Champdore', A. Varriale, G. Aquino, A. Vitale, I. Coccozza, V. Scognamiglio, M. Rossi, Sabato D'Auria

**Rivista Italiana di Nanotecnologie**, (2006),2, 55-58.

Biosensori e biochip basati sulla nanotecnologia del silicio poroso

L. De Stefano, I. Rendina, A.M. Rossi, M. Rossi, Sabato D'Auria.

**Rivista Italiana di Nanotecnologie**, (2005) 1, 61-63.