

## **Prof. Dibenedetto Angela**

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**Present position:** Associate Professor at the University of Bari, Department of Chemistry. Habilitated as Full professor since 2013.

**Areas of scientific interest:** Carbon dioxide utilization in synthetic chemistry, Homogeneous, heterogeneous and heterogenized catalysis, Integration of biotechnologies and catalysis, Coordination Chemistry and Organometallic Chemistry, Green and Sustainable Chemistry, Fuels and chemicals from spent and renewable Carbon.

### **Awards**

2018: Platinum, Energy and Environment Foundation HR Skill Development Award 2018 for “Carbon Recycling: towards circular economy” February 16, 2018.

2018: Award Altamura city for the research activities on “Carbon recycling and biomass utilization as alternative source of energy” March 9, 2018.

2011: Certificate of excellence for the most cited author in "Journal of catalysis".

2010: Finalist EUCHEMS award "European Sustainable Chemistry Award 2010".

2002: Nomination for the " R. A. Glenn Award" per il lavoro dal titolo “Bridging Natural Facts with Industrial Processes for Carbon Dioxide Utilization: Metal Enzymes and Transition Metal Systems” A. Dibenedetto and M. Aresta, 223<sup>rd</sup> National Meeting, American Chemical Society, Orlando - Florida, April 7-11, 2002.

2001: RUCADI Prize on "Better Carbon Management - An Intelligent Chemical Use of CO<sub>2</sub>" awarded by ACP-Belgium, Carburos Metalicos-Spain, ENIChem-Italy. October 8 2001, Thessalonichi (Greece).

2001: Nomination for the " R. A. Glenn Award" per il lavoro dal titolo “Nb<sub>2</sub>O<sub>5</sub> as catalyst in the oxidative carboxylation of olefins” A. Dibenedetto and M. Aresta, 221<sup>o</sup> National Meeting, American Chemical Society, San Diego, April 1-5, 2001.

### **Author of more than 150 papers**

<https://www.scopus.com/authid/detail.uri?authorId=7006900491>

### **Editor/author of books**

- “Biorefinery: from biomass to chemicals and fuels” ISBN 978-3-11-026028-1, De Gruyter, 2012.

- “Biorefineries: An Introduction” ISBN 978-3-11-033153-0, De Gruyter, 2015.

- “Inorganic Micro- and Nanomaterials Synthesis and Characterization” ISBN 978-3-11-030666-8, De Gruyter, 2012.

- “Reaction Mechanisms in Carbon Dioxide Conversion” ISBN 978-3-662-46831-9, Springer, 2016.

### **Patents**

• A. Dibenedetto, M. Aresta, P. Stufano (2009). Process for the preparation of symmetric carbodiimides via dehydration of relevant ureas. MI2009A001221, CIRCC.

• A. Dibenedetto, M. Aresta, F. Nocito, C. Ferragina, JL Dubois (2008). Synthesis process of polyol carbonate from polyols, conducted in using a solvent selective for polyols carbonates. 08305653.1-2117, ARKEMA - France, CIRCC Questo è un brevetto a livello EU e WO.

• A. Dibenedetto, M. Aresta, M. Ricci, ENI SPA, 13/10/2010. Process for the direct production of fatty acid alkyl esters from biomass". MI2010A001867.

• A. Dibenedetto, M. Aresta, D. Cornacchia, “Mixed oxide for the oxidative cleavage of lipids and unsaturated fatty acid methyl esters” PCT/EP2017/062616, 24/05/2016.

- A. Dibenedetto, M. Aresta, M. Ventura “Process to obtain 5-formyl-2-furancarboxylic acid from 5-hydroxymethylfurfural” N. 102016000014339, 11/02/2016.
- A. Dibenedetto, M. Aresta, D. Cornacchia, NOVAMONT "Mixed oxide for the oxidative cleavage of lipids and unsaturated fatty acid methyl esters" WO2017202955A1 del 30/11/2017.

### **Component of International evaluation panels:**

- National delegate as expert for IPCC Panel (Intergovernmental Panel on Climate Change) for data base creation on climate emission factors.
- French National Research Agency (ANR)
- Office of Research Grants - American Chemical Society.
- Netherlands Organization for Scientific Research (NWO) for Veni grant within the Innovational Research Incentives Scheme of the Domain Science.
- European Research Council (ERC), for ERC Starting Grant Call.
- Aragon Agency for Quality Assurance and Strategic Foresight in Higher Education (ACPUA) for ISQCH evaluation.

### **Editorial activities**

- Associate Editor “Journal of CO<sub>2</sub> utilization” Elsevier.
- Associate Editor “Carbon Capture, Storage and Utilization” Frontiers in Energy Research.
- International Advisory Board “ChemSusChem” Wiley.
- Editorial board member “Current Green Chemistry” Bentham Science.
- Editorial board member “Current Catalysis” Bentham Science.
- Editorial board member “International Journal of Green Technology” Green Publishers.
- Guest editor Special issue “Carbon Dioxide Utilization” ChemPhysChem 2017.
- Guest editor Special issue “Catalysis&Chemical Engineering” Catalysis Today 2018.

### **International Committee**

- **Vice Chair** of International Conference on Carbon Dioxide Utilization-ICCDU.
- **Member** of National Scientific Committee of EUROPACAT 2017.
- **Member** of National Scientific Committee of XLVII Conference of Inorganic Division – Italian Chemical Society, 2019
- **Organizer** of “Green Chemistry” session for ICCU Conference, Rimini, 2020.

### **Organization of International Schools**

- First International School on Applied Catalysis and IX Italian Seminar on Catalysis 2007, Giovinazzo (BA), Italy, 3-9 June 2007
- Summer School on "Utilization of Biomass for the Production of Chemicals or Fuels -The concept of Biorefinery comes into operation" September 18th-24th, 2011, Hotel Orsa Maggiore, Castro Marina, Lecce, Italy
- EuCheMS Summer School on "Synthesis and Characterization of Novel Nano-Sized Inorganic Materials", Villa La Rocca, Bari, 17-22 June 2012.

### **Organization of National Workshop**

- 2019: Workshop on Carbon Dioxide Utilization
- 2019: Bioeconomy Day
- 2018: Workshop on Bioeconomy in Puglia.
- 2017: RUCADI Day
- 2012 - ...: PhD day

### **Participation to International Conferences (invite only)**

1. 257<sup>th</sup> ACS, Orlando, Florida, Division of Energy and Fuel, March 31- April 4, 2019.
2. ICCDU XVI, Rio de Janeiro, Agosto 27-30, 2018.
3. Festival dello Sviluppo Sostenibile, Bari, 22 Maggio 2018.
4. Global PetroCoal Congress, New Delhi, Febbraio 15-17, 2018.
5. ICCDU XV, Shanghai July 17-21, 2017.
6. IUPAC Sao Paolo Brasil July 7-13, 2017.
7. Workshop “3rd Generation Biorefineries” Fondazione Golinelli – Bologna Marzo 23-14, 2017 organizzato dal Consorzio Interuniversitario Biotecnologie – CIB.
8. Workshop “Tecnologie chimiche e biologiche per la protezione ambientale” Roma, 22 Novembre 2016, organizzato da AIDIC.
9. EUChEMS Siviglia, September 11-15, 2016.
10. 251<sup>th</sup> ACS San Diego, Division of Energy and Fuel, 13–17 March 2016.
11. ICCDU XIII, Singapore, July 5-9, 2015.
12. ICCDU XII, Washington DC, July 23-27, 2013.
13. EICC2, Jerusalem, July 2013.
14. EUCHEMS-4, Prague, August 26-30, 2012.
15. XXIV Congresso Nazionale Società Chimica Italiana, Lecce 11-16 Settembre 2011.
16. ICCDU XI, Dijon June 27-30, 2011.
17. The CO2 Challenge Forum, Lyon, France September 27-28, 2010.
18. EUCHEMS-3, Nurnberg, August 29 -September 2, 2010.
19. EuCOMC XVIII, Gothenburg - 22-25 June 2009.
20. 2<sup>nd</sup> EUCHEMS Chemistry Congress, Torino, September 16-20, 2008.
21. XXXVI Congresso Nazionale Società Chimica Italiana, Lecce, 1-5 Settembre 2008.
22. 234<sup>th</sup> ACS National Meeting, Boston, MA, United States, August 19-23, 2007.
23. 41<sup>st</sup> IUPAC World Chemistry Congress, Turin, August 5-11 2007.
24. ICCDU IX, Kingston - ON - Canada, July 8-12, 2007.

### **Coordination activities/delegate**

- 2019-.... **Member of** Apulian Academy of Science
- 2019-... **Component** Technical Scientific Committee of National Cluster Green Chemistry-SPRING
- 2018-...: **Component** Committee for Attuative International Agreement between UniBa and Universidade Municipal de Sao Caetano do Sul (Brasile).
- 2018-...: **Component** Technical Scientific Committee of Centro di Eccellenza di Ateneo for Sustainability.
- 2017-...: **Component** of “Working group on Energy” (GLE-CUIA).
- 2017-...: **Component** Committee of Network of Sustainable Universities. Working group on wastes.
- 2016-...: **Coordinator** Interdepartmental Center on Environmental Methodologies and Technologies (METEA).
- 2016-2019: **Delegate** of Rector on Research and Innovation for bioenergies and biomass derivatives (D.R. n. 1109 del 19.04.2016).
- 2016-...: **Representative** UNIBA in DITNE - Nazionale Technological District on Energy.
- 2016-2018: **Coordinator** of I level University Master on “Management of radioactive waste and hazardous waste, intervention techniques for environmental protection”.
- 2016-...: **Component** of European Biomass Research Committee “EUBREN committee of biomass research experts”.
- 2016-...: **Component** of “European CLUSTER on Catalysis”.
- 2015-...: **Component** of National Cluster Green Chemistry – *Sustainable Processes and Resources for Innovation and National Growth* CLUSTER SPRING.
- 2012-....: **Delegate** UNIBA Interuniversity Consortium on Chemical Reactivity and Catalysis

(CIRCC).  
2012-...: **Director** of Interuniversity Consortium on Chemical Reactivity and catalysis (CIRCC).  
2009-2012: **Director** Interdepartmental Center on Environmental METHodologies and TEchnologies (METEA).

### **Coordination activities of National and International Projects**

2017- Italian Project PON  
2017- Italian Project PRIN 2017.  
2016 Italian Competitive Project.  
2014 Italian Competitive Project.  
2014-2017 Italian Project Cluster REBIOCHEM CTN01\_00063\_49393.  
2011-2014 Research project TOTAL.  
2011-2014 European Project IP "EUROBIOREF".  
2010-2016 Italian Project PON ENERBIOCHEM PON01\_01966.  
2008-2015 Apulian Region Project Reti di Laboratori VALBIOR  
2008 Italian Project PRIN 2008.  
2008-2011 Apulian Region Project ACTIBIOMAR.  
2005-2010 Integrated European Project TOPCOMBI.  
2001 Italian Project FIRB 2001.  
2000 Italian Project CNR-Agenzia 2000.