

## **Pubblicazioni su riviste internazionali**

### **2014**

- 1) M. Commodo, G. Tessitore, G. De Falco, A. Bruno, P. Minutolo, A. D'Anna, "Further details on particle inception and growth in premixed flames", **Proceedings of the Combustion Institute** **35**, article in press.
- 2) G. De Falco, M. Commodo, C. Bonavolontà, G. P. Pepe, P. Minutolo, A. D'Anna, "Optical and electrical characterization of carbon nanoparticles produced in laminar premixed flames", **Combustion and Flame**, article in press.
- 3) M. Commodo, G. Tessitore, G. De Falco, P. Minutolo, A. D'Anna, "Photoionization Study of Soot Precursor Nanoparticles in Laminar Premixed Ethylene/Ethanol Flames", **Combustion Science and Technology**, 186 (4-5), 621-633.
- 4) P. Minutolo, M. Commodo, A. Santamaria, G. De Falco, A. D'Anna, "Characterization of flame-generated 2-D carbon nano-disks", **Carbon**, 68, 138-148.

### **2013**

- 5) M. Commodo, L.A. Sgro, X Wang, C. De Lisio, P. Minutolo, "Fluorescence Anisotropy in a Diffusion Flame to Shed Light in the "Dark Region"", **Proceedings of the Combustion Institute** **34**, (1), 1845-1852.
- 6) M. Commodo, L.A. Sgro, P. Minutolo, A. D'Anna, "Characterization of Combustion-Generated Carbonaceous Nanoparticles by Size-Dependent Ultraviolet Laser Photoionization" **Journal of Physical Chemistry A**, 117 (19), 3980-3989.
- 7) M. Salamanca, M. Sirignano, M. Commodo, P. Minutolo, A. D'Anna, "The effect of ethanol on the particle size distributions in ethylene premixed flames", **Experimental Thermal and Fluid Science**, 43, 71-75.

### **2012**

- 8) M. Commodo, C. De Lisio, P. Minutolo, A. D'Anna, "Size measurements of fluorescent carbon nanoparticles in a coflowing laminar diffusion flame by time-resolved fluorescence anisotropy", **Combustion Science and Technology**, 184 (7-8), 916-928.
- 9) M. Commodo, I. Fabris, O. Wong, C. P. T. Groth, Ö. L. Gülder, "Three-dimensional fluorescence spectra of thermally stressed commercial jet A-1 aviation fuel in the autoxidative regime", **Energy & Fuels**, 26, 2191-2197.
- 10) M. Sirignano, A. Collina, M. Commodo, P. Minutolo, A. D'Anna, "Detection of aromatic hydrocarbons and incipient particles in an opposed-flow flame of ethylene by spectral and time-resolved laser induced emission spectroscopy", **Combustion and Flame** 159(4), 1663-1669.

### **2011**

- 11) M. Commodo, I. Fabris, C. P. T. Groth, Ö. L. Gülder, "Analysis of Aviation Fuel Thermal Oxidative Stability by Electrospray Ionization Mass Spectrometry (ESI-MS)", **Energy & Fuels**, 25, 2142-2150.

### **2010**

- 12) M. Commodo, O. Wong, I. Fabris, C. P. T. Groth, Ö. L. Gülder, "Spectroscopic Study of Aviation Jet Fuel Thermal Oxidative Stability", **Energy & Fuels**, 24, 6437-6441.

- 13) A. E. Karataş, M. Commodo, Ö. L. Gülder, “Soot Formation in Co- and Counter-flow Laminar Diffusion Flames of Binary Mixtures of Ethylene and Butane Isomers and Synergistic Effects”, **Energy & Fuels**, 24 (9), 4912-4918.

#### 2009

- 14) A. D’Anna, M. Commodo, M. Sirignano, P. Minutolo, R. Pagliara, “Particle formation in opposed-flow diffusion flames of ethylene: An experimental and numerical study”, **Proceedings of the Combustion Institute** 32, 793-801.
- 15) L.A. Sgro, A.C. Barone, M. Commodo, A. D’Alessio, A. De Filippo, G. Lanzaolo, P. Minutolo, “Measurement of nanoparticles of organic carbon in non-sooting flame conditions”, **Proceedings of the Combustion Institute** 32, 689-696.

#### 2008

- 16) A. D’Anna, M. Sirignano, M. Commodo, R. Pagliara, P. Minutolo, “An Experimental and Modelling Study of Particulate Formation in Flames burning Methane”, **Combustion Science and Technology**, 180 (5), 950-958.
- 17) A. D’Anna, M. Commodo, P. Minutolo, “Particle Inception in a Laminar Premixed Flames of Benzene”, **Combustion Science and Technology**, 180 (5), 758-766.
- 18) P. Minutolo, A. D’Anna, M. Commodo, R. Pagliara, G. Toniato, C. Accordini, “Emission of Fine Particles from Natural Gas Domestic Burners”, **Environmental Engineering Science**, 25(10), 1357-1364.

#### 2007

- 19) A. D’Anna, M. Commodo, S. Violi, C. Allouis, J. Kent, “Nano organic carbon and soot in turbulent non-premixed ethylene flames”, **Proceedings of the Combustion Institute** 31, 621-629.
- 20) M. Commodo, S. Violi, A. D’Anna, A. D’Alessio, C. Allouis, F. Beretta, P. Minutolo, “Soot and nanoparticle formation in laminar and turbulent flames”, **Combustion Science and Technology**, 179 (1-2), 387-400.

## Atti e presentazioni a congressi nazionali ed internazionali

- 1) G. De Falco, M. Commodo, P. Minutolo, A. D'Anna,  
*Adhesive and attractive forces of flame-formed carbon nanoparticles by Atomic Force Microscopy*  
Work-in-Progress Poster at the 35th International Symposium, San Francisco, California, USA, August 3-8, 2014.
- 2) M. Commodo, A. Bruno, G. de Falco, C. Borriello, T. Di Luccio, C. Minarini, P. Minutolo, A. D'Anna  
*Novel organic nano-carbon materials for organic electronics applications*  
E-MRS 2014 SPRING MEETING 26-30 May 2014, Lille, France.
- 3) G. De Falco, M. Commodo, P. Minutolo, A. D'Anna  
*An Experimental Study of Adhesion and Attractive Forces of Different Flame-Formed Carbon Nanoparticles using AFM*  
In: S. Caillat, B. Leroux, G. Legros, L. Tognotti, B. Apicella, M. Derudi. Joint Meeting of the French and Italian Sections of the IFRF and The Combustion Institute 23-24 April 2014, p.77, Pisa, Italy: The Italian Section of the Combustion Institute, ISBN: 978-88-88104-16-4, DOI: 10.4405/profic2014.C8.
- 4) M. Commodo, G. Tessitore, G. De Falco, P. Minutolo, A. D'Anna  
*Photoionization Study of Soot Precursors Nanoparticles in Laminar Premixed Ethylene/Ethanol Flames*  
MCS The Eight Mediterranean Combustion Symposium Ilıca Hotel, Çesme, Izmir, Turkey September 8 – 14, 2013.
- 5) G. De Falco, M. Commodo, A. Santamaria, G.P. Pepe, P. Minutolo, A. D'Anna  
*Optical and Electrical Characterization of Carbon Nanoparticles Produced in Laminar Flames*  
MCS The Eight Mediterranean Combustion Symposium Ilıca Hotel, Çesme, Izmir, Turkey September 8 – 14, 2013.
- 6) G. De Falco, M. Commodo, A. Santamaria, P. Minutolo, A. D'Anna  
*Nano-TiO<sub>2</sub> Particles Produced in a Vapour-Fed Aerosol Flame Reactor*  
In: A. Ciajolo, A. D'Anna, G. Nathan, F. Scala. XXXVI Combustion Meeting Annual meeting of the Italian Section of the Combustion Institute 13-15 June 2013, p.51, Isola di Procida, Italy, Napoli: The Italian Section of the Combustion Institute, ISBN: 9788888104157.
- 7) A. Santamaria, G. De Falco, M. Commodo, P. Minutolo, A. D'Anna  
*Raman Features Between Two Classes of Carbon Nanoparticles Generated in Ethylene Flames*  
In: A. Ciajolo, A. D'Anna, G. Nathan, F. Scala. XXXVI Combustion Meeting Annual meeting of the Italian Section of the Combustion Institute 13-15 June 2013, p.51, Isola di Procida, Italy, Napoli: The Italian Section of the Combustion Institute, ISBN: 9788888104157.
- 8) M. Commodo, G. Tessitore, G. De Falco, P. Minutolo, A. D'Anna  
*The role of Ethanol Addition in Laminar Premixed Flames of Ethylene on Soot Precursors Nanoparticles by Photoionization-DMA*  
In: A. Ciajolo, A. D'Anna, G. Nathan, F. Scala. XXXVI Combustion Meeting Annual meeting of the Italian Section of the Combustion Institute 13-15 June 2013, p.51, Isola di Procida, Italy, Napoli: The Italian Section of the Combustion Institute, ISBN: 9788888104157
- 9) P. Minutolo, A. Santamaria, M. Commodo, G. De Falco, A. D'Anna  
*Raman and AFM signature of flame-formed carbonaceous 2-D nano-flakes*  
Graphene 2013 April 23rd to 26th, 2013 Bilbao, Spain
- 10) A. Santamaria, G. De Falco, M. Commodo, P. Minutolo, A. D'Anna  
*Raman spectroscopy of carbon nanoparticles generated in ethylene premixed flames*  
COST CM0901 Soot and PAHs Joint Working Group Meeting April 10-12, 2013 Hilton Sorrento Palace Sorrento, Italy.
- 11) M. Commodo, P. Minutolo, A. D'Anna.  
*Analysis of flame-formed organic nanoparticles by UV laser photoionization measurements*  
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- 12) G. De Falco, A. Morgan, M. Commodo, P. Minutolo, A. D'Anna.

*Flame synthesis of MgO nanoparticles in a FASP Reactor*

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- 13) M. Commodo, L.A. Sgro, A. D'Anna, P. Minutolo.  
*Particle Inception Study in Fuel Rich Laminar Premixed Flames by Photoionization Measurements*  
XXXV Meeting of the Italian Section of the Combustion Institute – Milano, 10-12 Ottobre 2012.
- 14) G. De Falco, A. Morgan, M. Commodo, P. Minutolo, A. D'Anna.  
*Flame Synthesis of MgO Nanoparticles in a FASP Reactor*  
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- 15) G. De Falco, M. Commodo, P. Minutolo, A. D'Anna.  
*Scanning Spreading Resistance Microscopy for Electrical Characterization of Flame Generated Particles*  
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- 16) G. De Falco, M. Commodo, P. Minutolo, A. D'Anna.  
*Proprietà Elettriche del Particolato Carbonioso Prodotto da Fiamme Laminari Premiscelate Ricche di Combustibile*  
Convegno Nazionale GRICU 2012 – 16- 19 settembre 2012 Montesilvano PE.
- 17) G. De Falco, M. Commodo, V. Pagliarulo, G.P. Pepe, P. Minutolo, A. D'Anna.  
*Electrical Properties of Carbonaceous Particles Collected from Laminar Premixed Flames*  
European Aerosol Conference – Granada – Spain – 2-7 Sept 2012.
- 18) M. Commodo, L.A. Sgro, A. D'Anna, P. Minutolo.  
*Particle Inception and Growth in Premixed Flames by Photoionization Measurements*  
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- 19) G. De Falco, M. Commodo, P. Minutolo, A. D'Anna.  
*Flame synthesis of metal nanoparticles*  
34th International Symposium on Combustion – Warsaw, Poland, July 29 – August 3, 2012.
- 20) P. Minutolo, M. Commodo, G. De Falco, A. D'Anna.  
*Optical and Electrical Characterization of Carbon Nanoparticles Produced in Premixed Flames*  
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- 21) M. Salamanca, M. Sirignano, M. Commodo, P. Minutolo, A. D'Anna (2011).  
*Addition of Ethanol in Rich Premixed Flames of Ethylene: The effect of the Equivalence Ratio*  
In: Proceedings of 34th Meeting of the Italian Section of the Combustion Institute, Rome, 24-26 October (2011). ISBN: 978-88-88104-13-3
- 22) G. De Falco, M. Commodo, V. Pagliarulo, A. D'Anna, G.P. Pepe, P. Minutolo  
*Electrical Characterization of Carbonaceous Particles Collected from Premixed Laminar Flames*  
In: Proceedings of 34th Meeting of the Italian Section of the Combustion Institute, Rome, 24-26 October (2011). ISBN: 978-88-88104-13-3
- 23) M. Commodo, C.P.T. Groth, Ö.L. Gülder  
*Experimental Investigation of Aviation Fuel Thermal Oxidative Stability.*  
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- 24) G. De Falco, M. Commodo, L.A. Sgro, P. Minutolo, A. D'Anna.  
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- 25) M. Commodo, C. de Lisio, A. D'Anna, P. Minutolo.  
*Size Measurements of Fluorescent Carbon Nanoparticles in a Co-flowing Laminar Diffusion Flame by Time-Resolved Fluorescence Anisotropy.*  
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- 26) M. Salamanca, M. Sirignano, M. Commodo, P. Minutolo, A. D'Anna.

*The Ethanol Effect on Particle Size Distribution on Ethylene Premixed Flame.*

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- 27) M. Sirignano, A. Collina, M. Commodo, P. Minutolo, A. D'Anna  
*Detection of soot precursor particles by time-resolved laser induced emission measurements*  
In: Proceedings of the 5th European Combustion Meeting 2011. Cardiff, UK, 28th June 1st July 2011, , vol. 5, p. 112-113, Cardiff: The British Section of the Combustion Institute
- 28) M. Salamanca Guzman, M. Sirignano, M. Commodo, P. Minutolo, A. D'Anna (2011).  
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In: M. Alzueta. Cleaner Combustion 2011. Zaragoza (Spain), 7th-9th September 2011, p. 207-208, Zaragoza (Spain)
- 29) M. Commodo, O. Wong, I. Fabris, C. P.T. Groth, Ö. Gülder  
*Aromatic Content Variations in Thermally Stressed Aviation Fuel: A Spectroscopic Analysis*  
In: Proceedings of Combustion Institute – Canadian Section Spring Technical Meeting Carleton University, Ottawa, Canada 9-12 May (2010)
- 30) P. Minutolo, M. Commodo, M. Sirignano, A. D'Anna  
*Experimental and Modeling Study on Soot Inception in Rich Premixed Aliphatic and Aromatic Flames*  
Proceedings of 4th European Combustion Meeting ECM, Vienna, Austria 14-17 April (2009)
- 31) M. Commodo, A. D'Anna, R. Pagliara, P. Minutolo, G. Toniato  
*Emission of Ultra-Fine Particles from Domestic Burners*  
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- 32) A. D'Anna, M. Commodo, M. Sirignano, P. Minutolo, R. Pagliara  
*Numerical Simulation and Experimental Measurements of Soot and Organic Nanoparticles in Opposed-Flow Diffusion Flames of Methane, Ethylene and Propane*  
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- 33) A. D'Anna, M. Commodo, P. Minutolo  
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- 34) A. D'Anna, M. Sirignano, M. Commodo, R. Pagliara, P. Minutolo  
*An Experimental and Modelling Study of Particulate Formation in Flames burning Methane*  
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- 35) M. Commodo, E. Bichi, A. D'Anna, P. Minutolo, R. Pagliara, C. Allouis  
*Experimental study on nano-sized particles produced in flames burning methane*  
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- 36) G. Toniato, C. Accordini, A. D'Anna, M. Commodo, P. Minutolo, R. Pagliara  
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- 37) A. De Filippo, M. Commodo, P. Minutolo, L.A. Sgro  
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- 40) M. Commodo, S. Violi, A. D'Anna, P. Minutolo  
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- 42) M. Commodo, C. Allouis, P. Minutolo, A. D'Anna, A. D'Alessio  
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- 43) M. Commodo, S. Violi, A. D'Anna, A. D'Alessio, C. Allouis, F. Beretta and P. Minutolo  
*Soot and Nanoparticle formation in Laminar and Turbulent Flames*  
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- 44) M. Commodo, S. Violi, A. D'Alessio, A. D'Anna, C. Allouis, F. Beretta, P. Minutolo  
*Soot and nanoparticle concentrations in a turbulent non-premixed ethylene/air flame from laser induced emission measurements at 213nm*  
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