

## ***Diletta Sciti - Curriculum vitae***



**Diletta Sciti**, PhD, head researcher and project leader at the Institute of Science and Technology for Ceramics (ISTEC). Her activity as permanent researcher in ISTEC started in 2001.

**Education:** Master Degree in Physics cum laude, University of Bologna (1995), PhD in Engineering at the Kyoto Institute of Technology, Kyoto, Japan (2007).

**Present research field:** processing and characterization of structural ceramics and UHTCs (monolithic, particulate and fibre - reinforced) for high temperature/severe environment applications; sintering techniques; study of the relationship between processing, microstructure and properties.

### **Appointments:**

- 2013 - present: UHTC and Structural Ceramics Group leader
- 2019 - present: PhD Faculty Board Member in Science and Technology for Materials - University of Parma
- Supervisor/Tutor of master and PHD students, visit researchers.
- Invited expert for evaluation of ERC proposals and NSF proposals.
- Member of committees in open competitions for ISTEC research contracts and fellowships

### **Past appointments:**

- 2010 - 2015: Member of ISTEC Institute Scientific Council;
- 2013 - 2018: Member of the International Advisory Panel of the XMAT project – UK;

### **Projects/Grants:**

- 2016-2020: Coordinator in H2020 “Next Generation Ceramic Composites for combustion harsh environments and space” -C3HARME -GRANT n° 685594, NMP-19-2015, Total funding 8M€.
- 2019-2023: Coordinatore Sotto progetto Linea 3 “Materiali avanzati per fusione magnetica” JOINT RESEARCH AGREEMENT ENI-CNR.
- 2018-2020: PI in “BALTIC - Development and engineering of high performance ballistic protection systems based on TiB<sub>2</sub>-B<sub>4</sub>C ceramic composites” Piano Nazionale Ricerca Militare, funded by Ministero della Difesa.
- 2016-2018: PI in “Ultrahigh Temperature Ceramic Matrix Composites by Additive Manufacturing Using Polymer Precursors” Progetto di Grande Rilevanza funded by Ministry of Foreign Affairs (MAECI).
- 2014-2018: Responsible of ISTEC Unit in FP7-STAGE-STE, “Scientific and Technological Alliance for Guaranteeing the European Excellence in Concentrating Solar Thermal Energy”, Grant agreement no: 609837).
- 2012-2014: PI in “SMARP -Development of ultra-ablation resistant ceramics for application in the propulsion” Piano Nazionale Ricerca Militare, funded by Ministero della Difesa.
- 2011-2015: PI in “Characterization of Ultra-high Temperature Ceramics via Transmission electron Microscopy” GRANT FA8655-12-1-3004 supported by - AFOSR, Air Force Office of Scientific Research.
- 2010-2015: Responsible of ISTEC Unit in PON – SOLTESS, Solar Thermal Energy Solid Storage.
- 2010-2013: PI in “High strength and toughness ultra high temperature ceramics reinforced by fibers and carbon nanotubes”. Bilateral Project in the framework of the agreement CNR (Italy)/SAV (Slovak).
- 2010-2012: Responsible of ISTEC unit in the European Project E<sup>2</sup>PHEST<sup>2</sup>US, “Enhanced Energy Production of Heat and Electricity by a combined solar Thermoionic -Thermoelectric Unit System”, (Grant agreement n. 241270).
- 2009-2010: PI in “Characterization of Ultra-high Temperature Ceramics via Transmission electron Microscopy”. Duration 1 year. RESEARCH GRANT FA8655-09-M-4002, supported by EOARD (European Office of Aerospace Research and Development)

**Technology transfer and consultancy for industries:**

Research Manager in several contracts from Italian companies for R&D activity focused on innovative ceramic-based components, process and product quality control, technology transfer, including:

-2020-2022: research contract agreement with Industrie Bitossi Spa for research on “Structural ceramics based on SiC and B4C”.

-2011 and 2015: Services to Industrie Bitossi Spa, for consultancy and research on Alumina –based structural ceramics.

-2011: Contract from CIRA (Italian Aerospace Research Center), “Production and characterization of short fiber reinforced ZrB2-based Ceramics”. Duration 1 year.

-2008-2010: Contract from MBDA Missile Systems “Design and Development of nano-structured ceramic materials for realization of electromagnetic windows in the MMW band”. Duration 3 years.

**Involvement in International Conferences organization:**

- 2019, Local symposium organizer”: Advanced structural ceramics, composites and refractories”, ECERS 2019 Turin, IT

- 2017, Member of scientific committee and organizing committee in CERMODEL 2017, Modelling and simulation meet innovation in Ceramics technology, July 26-28, 2017 Trento, IT

- 2017, Organizing committee member in ECI conference, Ultra-high temperature ceramics: Materials for Extreme Environment Applications IV

- 2017, Chair of Topic 2: High temperature processes and advanced sintering, ECERS 2017, Email from Conference Organizers in data 2/10/2016

- 2016, International Advisory Board member and co-organizer of symposium M on "MAX phases and UHTC in ICC6 (6th International Congress on Ceramics), august 21-25 2016, Dresda.

- 2015, Co-chair of Structural Ceramics symposium in the 14th International Conference of the European Ceramic Society, 21-25 giugno 2015, Toledo Spain.

**Bibliography and Patents:**

- 195 publications (173 in peer review journals, 18 proceedings, 4 book chapters)

(Scopus h index = 36, total citations >4600)

- 10 patents

- Member of the Editorial Board in Journal of Ceramic Science and Technology since 2016

**Keynotes:**

- 30 Keynote/Invited Lectures at international conferences.

- Invited speaker at Technical Information Exchange Meeting (at AFOSR, Arlington VA) in the framework of IT-US Defence Science & Technology Dialogue, organized by the Italian Defense General Secretariat and the Embassy of Italy in Washington DC (May 2013)

- Invited speaker at the US –Italy JCM Advanced Materials (11-15 April 2015, Italy) organized by CNR, AFOSR, Embassy of Italy, CIRA.

**Awards:**

- 2014 - Best Patent Italia 2013, MBDA Innovation Awards, Roma, 6/3/2014 - CERAMIC MATERIAL FOR RADOME, RADOME AND PROCESS FOR THE PRODUCTION THEREOF, Pat. No. WO/2013/124871, International Application No.: PCT/IT2012/000052,

- 2014 - 2 & 3 Stars Innovation Award Event, MBDA-Paris, 13/05/2014, ibidem.

