

# SESSIONS BY DAY

9<sup>th</sup> Forum on  
New Materials

---



Perugia, Italy • June 25-29, 2022



CIMTEC2022

# CIMTEC 2022

Flowsheet		JUNE 25		JUNE 26		JUNE 27		JUNE 28		JUNE 29	
		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
9 <sup>th</sup> FORUM ON NEW MATERIALS	REGISTRATION										
	SYMPOSIUM FA			FA		FA	FA	FA		FA	FA
	SYMPOSIUM FB					FB		FB		FB	FB
	SYMPOSIUM FC			FC				FC			
	SYMPOSIUM FD			FD		FD	FD	FD	FD		
	SYMPOSIUM FE					FE		FE		FE	
	SYMPOSIUM FF			FF		FF		FF			FF
	SYMPOSIUM FG			FG		FG		FG	FG	FG	FG
	CONFERENCE FH			FH		FH	FH	FH	FH	FH	
	SYMPOSIUM FI			FI		FI		FI	FI	FI	FI
	SYMPOSIUM FJ					FJ	FJ	FJ			
	SYMPOSIUM FK			FK		FK	FK			FK	
	SYMPOSIUM FL			FL		FL	FL	FL	FL	FL	
	SYMPOSIUM FM			FM				FM	FM	FM	FM
	SYMPOSIUM FN			FN		FN					
	SYMPOSIUM FO							FO	FO	FO	FO
	SYMPOSIUM FP			FP		FP	FP	FP		FP	
	CONFERENCE FQ			FQ		FQ	FQ	FQ	FQ	FQ	
	CONFERENCE FR			FR		FR	FR	FR	FR	FR	FR
	POSTER MOUNTING										
	POSTER DISCUSSION										
	SOCIALS										



WELCOME RECEPTION



CONFERENCE DINNER

SYMPOSIUM FA  
**3D PRINTING AND BEYOND: STATE-  
OF-THE-ART AND NEW PARADIGMS  
FOR ADDITIVE MANUFACTURING  
TECHNOLOGIES**

Room: **ASSISI B**

Chair: Lorenzo VALDEVIT, USA

- 9.00 *FA-1:IL05* **Quality Aspects with Regard to 3D Printing of Ceramics**  
**H. FRIEDRICH**, F. RAETHER, J. VOGT, Fraunhofer Zentrum für Hochtemperatur-Leichtbau HTL, Bayreuth, Germany
- 9.30 *FA-1:IL06* **Additive Manufacturing of Ceramics and Ceramic Composites for Aerospace Applications**  
J.J. BOWEN<sup>1,2</sup>, L.M. RUESCHHOFF<sup>1</sup>, K.L. MARTIN<sup>1,2</sup>, D.P. STREET<sup>1,3</sup>, M.J.S. PARVELESCU<sup>1,2</sup>, **M.B. DICKERSON**<sup>1</sup>, <sup>1</sup>Materials and Manufacturing Directorate, Air Force Research Laboratory, Wright-Patterson AFB, OH, USA; <sup>2</sup>UES Inc., Dayton, OH, USA; <sup>3</sup>NRC Research Associateship Programs, Washington, DC, USA
- 10.00 *FA-1:IL08* **Innovative Zirconia-based Material Shaped by SLA 3D Printing**  
**C. CHAPUT**, C. SCHICK, 3DCERAM-SINTO, Bonnac La Cote, France
- 10.30 *Break*

Focused Session FA-5 / FQ-8  
**3D Bioprinting of  
Soft Tissues and Organs**  
(*Focused Joint Session with Conference FQ*)

Chair: Albert TARANCON, Spain

- 11.00 *FA-5/FQ-8:IL06* **Biofabricating Murine and Human Myo-substitutes for Rapid Volumetric Muscle Loss Restoration**  
**M. COSTANTINI**, Institute of Physical Chemistry - PAS, Warsaw, Poland; C. GARGIOLI, Università degli studi di Roma - Tor Vergata, Rome, Italy
- 11.30 *FA-5/FQ-8:L07* **Nano-encapsulation of Stem Cell-derived  $\beta$ -cell Aggregates using 3D Bioprinting System**  
**YEONGGWON JO**, D.G. HWANG, M. KIM, S. CHO, J. JANG, Pohang University of Science and Technology (POSTECH), Pohang, Gyeongbuk, South Korea
- 11.50 *FA-5/FQ-8:L08* **Modular Assembly of 3D Bioprinted Engineered Heart Tissue to Reconstruct Contractile Direction to Mimic Myocardial Fiber Orientation**  
**DONG GYU HWANG**, U. YONG, H. CHOI, J. JANG, POSTECH, Pohang, Gyeongbuk, South Korea