

## Invited Speakers

- IC1** : R. Chaim, Densification mechanism maps with plasma fields during spark plasma sintering of ceramic powders.  
**IC2** : G. Bernard-Granger, Spark Plasma Sintering: an useful tool to manufacture thermoelectrical materials.  
**IC3** : R. Torrecillas, [et al.], Multifunctional Materials by Spark Plasma Sintering: IP Nanoker experience.  
**IC4** : G. Cao [et al.], Reactive and non-reactive Spark Plasma Sintering for the fabrication of UHTC materials.  
**IC5** : J. Garay [et al.], Transmitting, emitting and controlling light: Nanocrystalline transparent ceramics for photonic applications.  
**IC6** : E. Olevsky, Ultra-Rapid Field-Assisted Consolidation of Powders.  
**IC7** : T. Misawa [et al.], Influence of frequency of power supply on sintering behavior of SPS process.

## Oral Communications

### Theme: Densification Mechanisms

- O1** : E. Grigoryev [et al.], The densification kinetics of powder materials at high-voltage consolidation.  
**O2** : E. Aleksandrova [et al.], In-Situ Bi-Axial Spark-Plasma Sintering Dilatometry.  
**O3** : Z. Trzaska [et al.], TEM investigation of microscopic densification mechanisms of TiAl elaborated by SPS.  
**O4** : R. Marder [et al.], Spark and plasma in spark plasma sintering of ceramics: soft versus rigid particles.  
**O5** : A. Proietti [et al.], Synthesis of olivine-pyroxene Earth-mantle analogues using Spark Plasma Sintering.

### Theme: FGM

- O6** : S. Meir [et al.], SPS processed Al<sub>2</sub>O<sub>3</sub>/Ti graded composite.  
**O7** : M. Schwertz [et al.], Spark Plasma Sintering technology applied to polymer-based composites for structural light weighting.

### Theme : Multimaterials

- O8** : K. Vanmeensel [et al.], Spark plasma sintering of tungsten based alloys, property assessment and up scaling possibilities, K.  
**O9** : L. Castro [et al.], Recent progress in the development of ceramic batteries by SPS.  
**O10** : F. Lalère [et al.], An all-solid state NASICON sodium battery operating at 200°C assembled by Spark Plasma Sintering.  
**O11** : S. Dupuis [et al.], Influence of the powder quality on the dielectric behavior of Ba<sub>0.6</sub>Sr<sub>0.4</sub>TiO<sub>3</sub> nanoceramics obtained by SPS.  
**O12** : M. Albino [et al.], Barium strontium titanate (BST)-TiO<sub>2</sub> ceramics by SPS: architecture, microstructure and dielectric properties  
**O13** : U. Anselmi-Tamburini [et al.], Low-Temperature Protonic Conductivity in Nanometric TiO<sub>2</sub> obtained by HP-SPS.  
**O14** : D. Bregiroux [et al.], From crystal to ceramic: fabrication of a low thermal expansion material.  
**O15** : N. Pradeilles [et al.], First approach of electromagnetic phenomena during the first stages of the SPS treatment.

### Theme: Joining Materials

- O16** : O. Guillon [et al.], Joining ZrB<sub>2</sub>-graphite by FAST/SPS: joints formation and the interfacial structures.

### Theme: Composites / nanocomposites

- O17** : S. Decker [et al.], Enhanced mechanical properties of a 5vol.% Mg-PSZ reinforced TRIP-matrix composite by a varied processing.  
**O18** : C. Arnaud [et al.], Carbon nanotube-copper composite: powder, SPS, microstructure and mechanical properties.  
**O19** : B. Lanfant [et al.], Nano-SiC/CNT composites sintered by SPS: CNT amount effect on mechanical, thermal and electrical Properties.  
**O20** : I. Agote [et al.], Titanium Matrix Composites by SPS: Study of the effect of type of reinforcements.  
**O21** : L. Boilet [et al.], Effect of cBN and Co content on densification, microstructure, mechanical properties and wear performance of SPS cBN/WC-Co composites.  
**O22** : R. Billard [et al.], Synthesis by SPS of a composite of barium aluminosilicate (BaAl<sub>2</sub>Si<sub>2</sub>O<sub>8</sub>) reinforced by oxide fibers.  
**O23** : G. Langa Thabiso [et al.], Microstructural and Phase Characterization of Spark Plasma Sintered WC-3YSZ Nanocomposites.

### Theme: transparent materials

- O24** : M. Nanko [et al.], Transparent oxide ceramics prepared by pulsed electric current sintering.  
**O25** : A. Largeteau [et al.], Critical parameters to obtain transparent ceramics by SPS: Cubic and Non-cubic crystalline systems  
**O26** : M. Sokol [et al.], Transparent polycrystalline magnesium aluminate spinel (PMAS) processed by high pressure SPS technique.  
**O27** : A. Katz [et al.], Evolution of Er:YAG transparent ceramics microstructures using LiF doping by Spark Plasma Sintering (SPS)

### Theme: Modeling/Simulations

- O28** : D. Giuntini [et al.], Assessment of Electrical Contact Resistance in Spark-Plasma Sintering Graphite Tooling,  
**O29** : Manière C. [et al.], Electrical, Thermal and Mechanical modeling of Spark Plasma Sintering.

### Theme: New developments

- O30** : J. Noudem, [et al.], Densification of AISI 316L stainless steel by spark plasma sintering.  
**O31** : D. Fabrègue [et al.], Elaboration of architected materials by spark plasma sintering.  
**O32** : S. Grasso [et al.], Field effects in Electric Current Assisted Sintering (ECAS) techniques.  
**O33** : J. Huber, FAST Direct Hot-Pressing (FAST DHP), the industrial equivalent to SPS.  
**O34** : E. Bichaud [et al.], Flash sintering of Alumina / Zirconia ceramic composites.  
**O35** : V. Dupont [et al.], Effect of hybrid heating on the temperature distribution during SPS sintering of large volume parts.  
**O36** : S. Rollin-martinet [et al.], Thermoelectric properties of Cu<sub>12</sub>Sb<sub>4</sub>S<sub>13</sub> tetrahedrite compounds sintered by Spark Plasma Sintering.  
**O37** : T. Voisin, [et al.], Development of titanium aluminides by SPS: to a low cost near-net shape blade with enhanced properties.

## Posters

- P1** : J. Lesseur [et al.], 3D imaging by X-ray microtomography of ferroelectric composite materials and numerical modelling of their properties.
- P2** : J. Wachowicz [et al.], WCCo/cBN produced by the Pulse Plasma Sintering (PPS) method.
- P3** : T. Lapauw [et al.] Reaction sintering of  $Mn_{1-x}Al_x$  phase ceramics by spark plasma sintering.
- P4** : V. Igor [et al.], Spark Plasma Sintering technique is as effective method for the synthesis and sintering of the thermoelectric materials.
- P5** : M. Yurlova [et al.], Synthesis and Consolidation of Fe-Ti-C Powder System by Field-Assisted Techniques.
- P6** : M. Legallais [et al.], Study by electrical methods of the oxidation state of Barium Titanate ceramics elaborated by SPS processes.
- P7** : L. Lebedeva [et al.], Field-Assisted Consolidation of Zirconium and Zirconium Alloy Powders.
- P8** : I. Bogachev [et al.], Densification Kinetics of Spark-Plasma Sintering of ODS Steel Powders.
- P9** : T. Al naboulsi [et al.], Spark plasma sintering of Barium titanate derived from mechanical activation.
- P10** : M. Yurlova [et al.], Comparative Analysis of High-Voltage Compaction, SPS and Hot-Pressing of ZrN and TiN Powders.
- P11** : G. Antou [et al.], A way to identify pressure-assisted sintering mechanisms: application to hot pressing and SPS of alumina.
- P12** : N. Tercé [et al.], SPS synthesis of Fe-rich olivine aggregates.
- P13** : O. Gerber [et al.], Porous iron oxide@graphene nanocomposites processed by SPS.
- P14** : G. Philippot [et al.], Spark Plasma Sintering processing of supercritical  $Ba_{1-x}Sr_xTiO_3$  nanoparticles to study size and strain effects on the structural and dielectric properties
- P15** : Z. Trzaska [et al.], Electromigration experiments in the Ag-Zn system in SPS conditions.
- P16** : M. Prakasam [et al.], Ruby and Ti: Sapphire transparent ceramics by spark plasma sintering (SPS) for laser applications.
- P17** : G. Fantozzi [et al.], Effect of Mg, Zr, La doping on sintering, microstructure and transparency of alumina sintered by SPS..
- P18** : G. Bonnefont [et al.], Transparent  $MgAl_2O_4$  Spinel obtained by SPS.
- P19** : I. Agote [et al.], Processing of thermoelectric materials by SPS.
- P20** : U. Kus [et al.], Study of the Spark Plasma Sintering of the Ta6V alloy.
- P21** : Ch. Laurent [et al.], Metal-oxide composite coatings formed *in situ* during SPS of oxide powder.
- P22** : F. Nozahic[et al.], Spark Plasma Sintering of ceramic-intermetallic composites for self-healing thermal barrier systems.