



**Day-1**

**16-Apr-18**

**08:30-09:00** Registrations

**09:00-09:15** Opening Ceremony

**Keynote Forum**

**09:15-09:30** Introduction

**Keynote**

**09:30-10:00** Title: On Transitioning Spacecraft Power System Technology to Terrestrial Power Systems for 2020 and Beyond

**Terry J. Hendricks**, NASA- Jet Propulsion Laboratory CANADA

**10:00-10:30** Title: Growth of vertically aligned carbon nanotubes on aluminum foils

**Cecile Reynaud**, Université Paris-Saclay, FRANCE

**10:30-11:00** Title: Dense assemblies of magnetic nanoparticles: characterization and applications

**JOSE A. DE TORO SANCHEZ**, Universidad de Castilla-La Mancha, Spain

**Coffee break: 11:00-11:20**

**Nanomaterials**

**Nanomedicine and Biomedical Engineering**

**Nanomedical Approaches for Cancer Diagnosis**

**Carbon nanomaterials, devices and technologies**

**Session Chair** **Andreas Schnepf**, University Tübingen, GERMANY

**Session Introduction**

**11:20-11:40** Title: Metalloid Clusters of main Group and Precious Metals

**Andreas Schnepf**, University Tübingen, GERMANY

**11:40-12:00** Title: Synthesis, characterization and application of a new Ni-P-carbon nitride nanocomposite

**Aboubakr M. Abdullah**, Qatar University, Qatar

**12:00-12:20** Title: Influence of Elongational Flow generating Nozzles on Material Properties of Polypropylene Nanocomposites

**Walter Friesenbichler**, Montanuniversitaet Leoben, Austria

**12:20-12:40** Title: Metal nanoparticles as a novel and safe strategy to fight pathogenic spores and antibiotic-resistant microbial biofilms.

**Roberto Grau**, Universidad Nacional de Rosario, Argentina.

**12:40-13:00** Title: Improves photocatalytic activity and elimination of ZnO photocorrosion by ZnO@GO nanoparticles formation

**Cristian Miranda**, University of Concepción, Chile

|                                       |   |
|---------------------------------------|---|
| 13:00-13:20                           | <b>Title: Crystalline structural study of F-doped tin oxides thin films grown on thin glass plates</b>  |
|                                       | <b>Juan Manuel Mariñoso Pascual</b> , Universidad Politécnica de Cartagena, Spain.  |
| <b>Lunch: 13:20-13:50</b>             |   |
| 13:50-14:10                           | <b>Title: Effective finite element methods for the dynamic analysis of composite shell structures</b>   |
|                                       | <b>José Miguel Martínez Valle</b> , University of Córdoba (Spain).  |
| 14:10-14:30                           | <b>Title: Magnetic ferrite nanoparticles and colloidal superparticles candidates for theranostics</b>   |
|                                       | <b>Catherine Dendrinou-Samara</b> , Aristotle University of Thessaloniki, Greece  |
| 14:30-14:50                           | <b>Title: Characterization of nanoparticles for drug delivery using new NMR methods</b>   |
|                                       | <b>Staffan Schantz</b> , Pharmaceutical Development, Sweden   |
| 14:50-15:10                           | <b>Title: Electrochemical paper-based sensor integrated with molecular imprinting towards point-of-care diagnosis</b>   |
|                                       | <b>Gabriela Martins</b> , Sensor Research Instituto Superior de Engenharia do Porto, portu  |
| 15:10-15:30                           | <b>Title: Development of Paper-based Colour Test-Strip for Alzheimer biomarker detection in point-of-care</b>   |
|                                       | <b>Felismina Moreira</b> , Polytechnic Institute of Porto, Portugal   |
| 15:30-15:50                           | <b>Title: Preclinical Imaging for a Theranostic Approach using Engineered Nanoparticles in mice models of lymphoma.</b>   |
|                                       | <b>Adelaide Greco</b> , Univ. degli Studi di Napoli Federico II, ITALIA   |
| 15:50-16:10                           | <b>Title: Fabrication and characterization of thermal, electrical and mechanical properties of ethylene-octene copolymer composites with functionalized multi-walled carbon</b> |
|                                       | <b>Remo Merijs Meri</b> , Riga Technical University , Latvia.   |
| <b>Coffee break: 16:10-16:30</b>      |   |
| 16:30-16:50                           | <b>Title: Carbon Nanogels and Nanocomposites for catalytic applications</b>   |
|                                       | <b>Francisco Jose Maldonado</b> , University of Granada, Spain  |
| <b>Applications of Nanotechnology</b> |   |
| <b>Nanobiotechnology</b>              |   |
| <b>Graphene Technologies</b>          |   |
| <b>NANO ELECTRONICS</b>               |   |
| <b>Session Chair</b>                  | <b>Goreti Sales, Polytechnic Institute of Porto, PORTUGAL</b>   |
| <b>Session Introduction</b>           |   |
| 16:50-17:10                           | <b>Title: Nanomaterials mimicking antibodies applied to biosensing</b>  |
|                                       | <b>Goreti Sales</b> , Polytechnic Institute of Porto, PORTUGAL  |
| 17:10-17:30                           | <b>Title: Diffusion Study of Magnesium Sulfate ions for reduced Graphene oxide based membrane</b>   |
|                                       | <b>Mohamed A Antar</b> , King Fahd University of Petroleum and Minerals, Saudi Arabia   |
| 17:30-17:50                           | <b>Title: Development and study of graphene and WS2 based heterostructure for photocatalytic hydrogen evolution</b>   |
|                                       | <b>Beissenov R.E</b> , Institute of Combustion Problems, Kazakhstan   |
| 17:50-18:10                           | <b>Title: Nanotechnology Science to Convergence Innovation</b>  |
|                                       | <b>Akbar S. Khan</b> , Defense Threat Reduction Agency, USA   |

|  |  |
|--|--|
| 18:10-18:30  | <b>Title: Thermal energy storage enhancement of solar salt by doping Al<sub>2</sub>O<sub>3</sub> nanoparticles</b> |
|  | <b>Yanwei Hu</b> , Harbin Institute of Technology, china   |
| 18:30-18:50  | <b>Title: Nanotextured Surfaces for Enhanced Gene Transfer</b>   |
|  | <b>Michael Schlau</b> , Rochester Institute of Technology, USA   |
| <b>Day-2</b>   |  |
| <b>17-Apr-18</b>   |  |
| <b>KEYNOTE</b>   |  |
| 09:00-09:30  | <b>Title: Theoretical Modeling in Organic Nanophotonics</b>  |
|  | <b>ALEXANDER BAGATURYANTS</b> , Russian Academy of Science, Russia   |
| <b>Ceramic and Glass Materials</b><br><b>Materials Science-Fundamentals &amp; Characterization</b><br><b>Emerging areas of Materials Science</b><br><b>Energymaterials</b> |  |
| <b>Session Chair</b>   | <b>KAWASAKI AKIRA</b> , Tohoku University, JAPAN   |
| <b>Session Introduction</b>  |  |
| 09:30-09:50  | <b>Title: Highly strain tolerant and tough ceramic composite by incorporation of graphene</b>                      |
|  | <b>KAWASAKI AKIRA</b> , Tohoku University, JAPAN   |
| 09:50-10:10  | <b>Title: Lithium Materials: The new energy paradigm of the 21th century.</b>                                      |
|  | <b>Marisa Alejandra Frechero</b> , Universidad Nacional del Sur, Argentina   |
| 10:10-10:30  | <b>Title: PREDICTION OF THE PROPERTIES OF POLYMER MATERIALS: A MULTISCALE MODELLING APPROACH</b>                   |
|  | <b>Patrice Malfreyt</b> , Université Clermont Auvergne, FRANCE   |
| 10:30-10:50  | <b>Title: Transitions in the hydrogen surface state under strain</b>   |
|  | <b>Ian Shuttleworth</b> , Nottingham Trent University, UK  |
| 10:50-11:10  | <b>Title: The implementation of peptide nanotubes made by non-natural amino acids</b>                              |
|  | <b>Manuel Amorín</b> , Universidad de Santiago de Compostela, Spain.   |
| <b>Coffee break: 11:10-11:30</b>   |  |
| 11:30-11:50  | <b>Title: One-component fermion plasma on a sphere at finite temperature</b>                                       |
|  | <b>Riccardo Fantoni</b> , University of Trieste, Italy   |
| 11:50-12:10  | <b>Title: Introducing sustainable practices in organic electronics</b>   |
|  | <b>Assunta Marrocchi</b> , Università degli Studi di Perugia, Italy  |
| 12:10-12:30  | <b>Title: Stretchable Ionics – A promising candidate for oncoming wearable devices</b>                             |
|  | <b>Jeong-Yun Sun</b> , Seoul National University, Republic of Korea  |
| 12:30-12:50  | <b>Title: Operando characterization of batteries using X-ray absorption and X-ray diffraction</b>                  |
|  | <b>Marco Giorgetti</b> , University of Bologna, ITALY  |
| <b>Nanotechnology for Energy and the Environment</b><br><b>Nanocomposites and Multifunctional Materials</b><br><b>Microtechnology</b>                                      |  |

| <b>Nanodevices</b>                            |  |
|---|--|
| <b>Risks and Regulation of Nanotechnology</b> |  |
| <b>Session Chair</b>                          | <b>Mahe Amer, Wright State University, Dayton, OH</b>  |
| <b>Session Introduction</b>                   |  |
| <b>12:50-13:10</b>                            | <b>Title: Gigantic Challenges, Nano-Solutions</b><br><b>Mahe Amer, Wright State University, Dayton, OH</b>   |
| <b>Lunch: 13:10-13:40</b>                     |  |
| <b>13:40-14:00</b>                            | <b>Title: The role of dopants in ZnO Nanorods for Energy and Environment</b><br><b>Mariuca Gartner , Institute of Physical Chemistry "Ilie Murgulescu", Bucharest</b>  |
| <b>14:00-14:20</b>                            | <b>Title: Graphene Oxide and carbon nitride Nanocomposites in wastewater treatment</b><br><b>Halema Alakndari , College of Health Sciences, Kuwait</b>   |
| <b>14:20-14:40</b>                            | <b>Title: New oxidic films for photovoltaic cells</b><br><b>Hermine Stroescu , Institute of Physical Chemistry "Ilie Murgulescu", Bucharest</b>  |
| <b>14:40-15:00</b>                            | <b>Title: Synthesis of well dispersed gold nanoparticles on reduced graphene oxide and its application in PEM Fuel Cells</b><br><b>Marinoiu Adriana, Institute for Cryogenics and Isotopic Technologies, Romania</b>                   |
| <b>15:00-15:20</b>                            | <b>Title: Development of 3D porous photoanode material based on Co<sub>3</sub>O<sub>4</sub> and TiO<sub>2</sub> nanopowders composition</b><br><b>Almaz Mereke , Institute of Physics and Technology, Kazakhstan</b>                   |
| <b>15:20-15:40</b>                            | <b>Title: Development of high-efficiency porous Ni anode material for thin film solid oxide fuel cells</b><br><b>Arman, Institute of Physics and Technology, Kazakhstan</b>  |
| <b>15:40-16:00</b>                            | <b>Title: Simple one-pot synthesis of SiO<sub>x</sub>@C composite with simultaneous fabrication of the multiple carbon matrix for high-performance Li-ion batteries</b><br><b>Hyeon-Woo Yang, Sejong University, Republic of Korea</b> |
| <b>Coffee break: 16:00-16:20</b>              |  |
| <b>16:20-16:40</b>                            | <b>Title: A novel method for copper nanowire fabrication by electrochemical deposition</b><br><b>Wen-Ta Tsai , National Cheng Kung University, Taiwan</b>  |
| <b>16:40-17:00</b>                            | <b>Title: Using plant genome to determine the genotoxicity of nanoparticles at the DNA level</b><br><b>Noha Khalifa , Illinois State University , USA</b>  |
| <b>17:00-17:20</b>                            | <b>Title: Electrochemical Template Synthesis of Ni-Co Nanowires with Tunable Properties</b><br><b>Ruxandra Vidu, University of California Davis, Davis</b>   |
| <b>17:20-17:40</b>                            | <b>Title: Ni-Co and Ni-Zn Hydroxide based bi-Phase Nanocomposites with Different Kind of Porosity Depending to the Free-Template Hydrothermal Method</b><br><b>O. GUELLATI, Badji Mokhtar University of Annaba, ALGERIA.</b>           |
|   |  |
|   |  |

**Day-3****18-Apr-18****Biomaterials and Polymer Chemistry****Other****Materials Processing and Product Manufacturing****Materials Science and Engineering****Nano photonics and optics****Electronic, Optical, and Magnetic Materials****Session Chair** Ze Zhang, Université Laval, CANADA**Session Introduction**

|                    |  |
|--------------------|--|
| <b>09:00-09:20</b> | <b>Title: Flexible Polypyrrole Membrane</b><br>Ze Zhang, Université Laval, CANADA  |
| <b>09:20-09:40</b> | <b>Title: Charge transport and structure in semi-metallic polymers</b><br>sam rudd, University of South Australia, Australia                                   |
| <b>09:40-10:00</b> | <b>Title: Self-assembly of ultra-short ab-peptides into ordered structures for intracellular delivery</b><br>Sara Pellegrino, University of Milano, ITALY      |
| <b>10:00-10:20</b> | <b>Title: Automated Technologies in Composite Shipbuilding. Application Features</b><br>Olga Fedorova, Shipbuilding & Shiprepair Technology Center, Russia.    |
| <b>10:20-10:40</b> | <b>Title: Thermoelectric properties of the surface Dirac states of 3D topological insulators.</b><br>Stephane Yu Matsushita, Tohoku University, Sendai, Japan. |
| <b>10:40-11:00</b> | <b>Title: Making a Carbonaceous Sponge-like Sorbent from Fly Ash.</b><br>Attieh Alghamdi, University of Jeddah, Saudi Arabia                                   |

**Coffee break: 11:00-11:20**

|                    |  |
|--------------------|--|
| <b>11:20-11:40</b> | <b>Title: Electrodeposition of functional Fe-W alloys for environmentally sustainable applications</b><br>Aliona Nicolenco, Vilnius University, Lithuania  |
| <b>11:40-12:00</b> | <b>Title: Rapid Optically Directed Assembly of Nano-Patterned Metasurfaces with colloidal Nanoparticles</b><br>Xiaoping Huang, University of Electronic Science and Technology of China, CHINA             |
| <b>12:00-12:20</b> | <b>Title: pH-Responsive Selenium Nanoparticles Stabilized by Folate-Chitosan Delivering Doxorubicin for Overcoming Drug-Resistant Cancer Cells</b><br>Urarika Luesakul, Chulalongkorn University, Thailand |
| <b>12:20-12:40</b> | <b>Title: New highly stable and photoactive coatings for the treatment of indoor air pollutants</b><br>Carlos Martinez, Analysis and Photocatalytic Treatment of Pollutants in Air Unit, Spain             |
| <b>12:40-13:00</b> | <b>Title: NMR experimental evidence on the stratified nature of water in carbon nanotubes</b><br>Jamal M Hassan, Khalifa University of Science and Technology, UAE   |

**Lunch break: 13:00-13:30**

|                             |   |
|-----------------------------|---|
| 13:30-13:50                 | <b>Title: Effect of graphene nanoplatelets and multi-walled carbon nanotubes on tensile properties of rigid polyurethane</b>  |
|                             | <b>Amir Navidfar</b> , Istanbul Technical University, Turkey  |
| 13:50-14:10                 | <b>Title: Characterization and application of nanotube activated carbon for the removal of Pb<sup>2+</sup> from aqueous solutions</b>   |
|                             | <b>Jasim Mohammed Salman</b> , Al Nisour University College, Baghdad-Iraq   |
| 14:10-14:30                 | <b>Title: Commercial photocatalytic products to reduce urban air pollution: Assessment and monitoring of their properties over time</b>   |
|                             | <b>Carlos Martinez</b> , Analysis and Photocatalytic Treatment of Pollutants in Air Unit, Spain   |
| 14:30-14:50                 | <b>Title: A top-down approach to produce protein-functionalized cellulose fibrils</b>   |
|                             | <b>Franck Quero</b> , Universidad de Chile, Chile   |
| <b>Posters: 14:50-15:50</b> |   |
| 1                           | <b>Title: Thermo conductive carbon nanotube-framed membranes for skin heat signal-responsive transdermal drug delivery</b>  |
|                             | <b>JI HYE KANG</b> , Dankook University, Korea  |
| 2                           | <b>Title: Characterization of thermal, electrical and mechanical properties of polyethylene terephthalate composites with multi-walled carbon nanotubes for thermoelectric materials</b>            |
|                             | <b>Janis Zicans</b> , Riga Technical University, Latvia   |
| 3                           | <b>Title: Monodisperse Uni- and Multi-Vesicles as Surface Properties of Microfluidic chip</b>   |
|                             | <b>hosup jung</b> , Seoul National University, south korea  |
| 4                           | <b>Title: Bioengineered skin: Preclinical models for dermatological testing.</b>  |
|                             | <b>Roxane Pouliot</b> , Université Laval, CANADA  |
| 5                           | <b>Title: Reusable Moth-Eye nano-patterned PDMS sticker with a versatile function of coating for photovoltaics.</b>   |
|                             | <b>Yong H. Ghymn</b> , Bio-Nano Research Center, Republic of Korea  |
| 6                           | <b>Title: Synthesis and characterization of hollow Fe<sub>3</sub>O<sub>4</sub> nanoparticles</b>  |
|                             | <b>Lei Shi</b> , Harbin Institute of Technology, China  |
| 7                           | <b>Title: Properties of nano-scale membranes for EUV pellicle applications</b>  |
|                             | <b>Jinho Ahn</b> , Hanyang University, Korea.   |
| 8                           | <b>Title: Influence of the support used on the morphology of the template synthesized intermetallic (Co-Sn, Ni-Sn, Co-Ni) nanoparticles</b>   |
|                             | <b>Ivania Markova</b> , University of Chemical Technology and Metallurgy-Sofia, Bulgaria  |
| 9                           | <b>Title: Comparative study of Superhydrophilic and Superhydrophobic TiO<sub>2</sub>/Epoxy Coatings on AISI 316L Stainless Steel: Surface Properties, Corrosion Resistance and Biocompatibility</b> |
|                             | <b>Aleksandra Kocijan</b> , Institute of Metals and Technology, Slovenia  |
| 10                          | <b>Title: Comparison of enzymatic and non-enzymatic electrochemical biosensors based on graphene quantum dots and nanoparticles of polypyrrole and gold</b>   |
|                             | <b>Joanna Breczko</b> , University of Bialystok, Poland   |

|    |  |
|----|--|
| 11 | <b>Title: Nickel titanate decorated reduced graphene oxide for electrochemical sensing of glucose in human body fluids</b>   |
|    | <b>Elzbieta Regulaska</b> , University of Bialystok, Poland  |
| 12 | <b>Title: Wettability and friction control of stainless steel surface by combining nanosecond-laser texturing and adsorption of superhydrophobic nanosilica particles</b>                    |
|    | <b>Marjetka Conradi</b> , Institute of metals and technology, Slovenia   |
| 13 | <b>Title: Two-dimensional-layered metal dichalcogenides MX<sub>2</sub> for semiconductors</b>  |
|    | <b>Francisco Torrens Zaragoza</b> , Universitat de València, SPAIN   |
| 14 | <b>Title: Shape Controllable Synthesis of Pt–Fe<sub>3</sub>O<sub>4</sub>–MnO<sub>x</sub> Nanoparticles and Electrocatalytic Activity on Oxygen Reduction Reaction</b>                        |
|    | <b>Yusuf Mohammad</b> , Pusan National University, Republic of Korea   |
| 15 | <b>Title: Shuttlecock-Shaped Molecular Rectifier: Asymmetric Electron Transport Coupled with Controlled Molecular Motion</b>   |
|    | <b>Taekhee Ryu</b> , Supercomputing and Big Data Center, DGIST, Korea  |
| 16 | <b>Title: Core-shell structure and closest packing of electrically conductive polymer/carbon nanotube hybrid: High electrical conductivity of bucky paper</b>                                |
|    | <b>Sung-Jin, Kim</b> , Dankook University, Korea   |
| 17 | <b>Title: Wettability Control on Chitosan-Wrapped Carbon Nanotube Surface Through Simple Octanal-treatment: Selective Removing Phenol from Water.</b>  |
|    | <b>Han-Sem, Kim</b> , Dankook University, Korea  |
| 18 | <b>Title: Preparation of electrically conductive bucky-sponge using CNT cement Conductivity control using room temprature ionicliquids.</b>  |
|    | <b>Sang-yu , Park</b> , Dankook University, Korea  |
| 19 | <b>Title: Synthesis and characterization of gold nanoparticles supported on two different metal oxides prepared by impregnation with ionic exchange to form ferromagnetic nanostructures</b> |
|    | <b>Belfennache Djamel</b> , University of Mentouri Constantine Brothers  |
| 20 | <b>Title: Structure characterization of the DNA aptamer Gli-235 to human glioblastoma</b>  |
|    | <b>Roman Moriachkov</b> , Siberian Federal University, Russia  |
| 21 | <b>Title: Center for Sensorimotor Neural Engineering</b>   |
|    | <b>Scott Ransom</b> , University of Washington Center for Sensorimotor Neural Engineering , United States  |
| 22 | <b>Title: Synthesis and manipulation of noble metal nanoparticles inside the glass matrices</b>  |
|    | <b>Mihaela Koleva</b> , Bulgarian Academy of Sciences, Bulgaria  |
| 23 | <b>Title: Graphene Based SnO<sub>2</sub> with CNT Core Electrodes for Li-ion Batteries</b>   |
|    | <b>Mirac Alaf</b> , Bilecik Seyh Edebali University, Bilecik, TURKEY   |
| 24 | <b>Title: Biological activity of cationic derivatives: arginine and lysine</b>   |
|    | <b>Anderson Ramos</b> , University of Barcerlona, Spain.   |
| 25 | <b>Title: The mechanisms research of pine needle oil-induced DNA damage pathway in HepG2 human hepatic cancer cell line.</b>   |
|    | <b>Bing Qiu</b> , Heilongjiang Provincial Hospital, China  |

|                         |   |
|-------------------------|---|
| 26                      | <b>Title: The Properties and Potential Application of Highly Color Carbon Black</b>   |
|                         | <b>Sooyoul Park</b> , Interface Chemical materials and Process Center, Korea  |
| 27                      | <b>Title: Studies on preparation of nano-tetranitroacetimidic acid: green oxidizer for rocket propellants damage pathway in HepG2 human hepatic cancer cell line.</b> |
|                         | <b>P.M. Jadhav</b> , High Energy Materials Research Laboratory, Pune, India   |
| 28                      | <b>Title: Development of process of TiO<sub>2</sub> fine powder production using combined plasma torch</b>  |
|                         | <b>Vladimir Frolov</b> , St. Petersburg Polytechnic University, Russian Federation  |
| 29                      | <b>Title: NANOCOMPOSITE FOR FAST BACTERIAL DETECTION</b>  |
|                         | <b>Tamara Lobaina</b> , Centro Nacional de Biopreparados, Cuba  |
| 30                      | <b>Title: Enhancement of Initial Coulombic Efficiency of SiO<sub>x</sub> Anode Electrode Fabricated with Controlled SEI Formation for Lithium Ion Battery</b>         |
|                         | <b>Nayoung Kang</b> , Sejong University, Republic of Korea  |
| 31                      | <b>Title: Ni and/or Co Carbonate Hydroxide based bi-Structure Nanocomposites for waste treatment application</b>  |
|                         | <b>O. GUELLATI</b> , Badji Mokhtar University of Annaba, ALGERIA.   |
| 32                      | <b>Title: Elaboration of AlSi13 Casting Alloys modified using Directional Solidification Processing</b>   |
|                         | <b>O. GUELLATI</b> , Badji Mokhtar University of Annaba, ALGERIA.   |
| 33                      | <b>Title: Effect of Hydrothermal Process Parameters on Ni/Fe Heterostructure Nanocomposites Morphology and Porosity</b>   |
|                         | <b>O. GUELLATI</b> , Badji Mokhtar University of Annaba, ALGERIA.   |
| 34                      | <b>Title: Gas sensing properties of TiO<sub>2</sub>-SnO<sub>2</sub> nanocomposites</b>  |
|                         | <b>Anna Szczygielska</b> , AGH - University of Science and Technology, poland   |
| 35                      | <b>Title: The heterogeneous two-dimensional Mo(1-x)W(x)S(1-y)Se<sub>y</sub> alloys and phototransistors based on them</b>   |
|                         | <b>Sergey Lavrov</b> , Moscow Technological University, Russian Federation  |
| 36                      | <b>Title: Fabrications and Characterizations of various 3D printing materials</b>   |
|                         | <b>KYUNG HYUN KIM</b> , Electronics and Telecommunications Research Institute , SOUTH KOREA   |
| <b>Closing ceremony</b> |   |
|                         |   |