

**SPRING 15 WA: Advanced materials and technologies for renewable energies (AMREN-1)**

| 14 May  |  |  |
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| Session: Renewable Energies – from materials to implementations |  |  |
| Time  | Speaker  | Presentation Title   |
| 08:25 - 08:35   | <b>Abdelilah Slaoui</b> , iCUBE-CNRS, France   | Introduction to AMREN workshop   |
| 08:35 - 09:00   | <b>Peter Viebahn</b> , Wuppertal Institute for Climate, Environment and Energy, Germany        | Assessing the need for critical minerals to shift the German energy system towards a high proportion of renewables   |
| 09:00 - 09:25   | <b>Alexandra Troi</b> , Institute for Renewable Energy, EURAC research European Academy, Italy | 3ENCULT - Efficient Energy for EU cultural heritage. How innovative materials are needed to increase the energy performance in historic buildings and cities |
| 09:25 - 09:55   | <b>Atilla Ersöz</b> , TUBITAK Marmara Research Center (MRC), Turkey                            | Turkish renewable energy vision 2023 and solar technology applications   |
| 09:55 - 10:20   | <b>Francesco Sergi</b> , CNR-ITAE, Italy   | Evaluating performance and developing novel architectures for energy storage applications  |
| 10:20-10:35   | <b>Armando C. Oliveira</b> , FEUP, University of Porto, Portugal                               | Renewable Electricity Cooperation (REELCOOP) Project   |
| <b>10:35 - 11:00</b>  | <b>Break</b>   |  |
| Session: Materials for energy applications                      |  |  |
| 11:00 - 11:25   | <b>Frédéric Chandezon</b> , INAC/UMR SPram, CEA Grenoble & EERA AMPEA JP, France               | AMPEA – The EERA Joint Programme on Advanced Materials for Energy Applications   |
| 11:25 - 11:50   | <b>William Tumas</b> , NREL, USA   | Computationally designing energy materials by including metastability  |
| 11:50 - 12:15   | <b>Gilles Dennler</b> , IMRA Europe, France  | State of the art, opportunities and challenges for thermoelectricity as competitive renewable energy source  |
| 12:15 - 12:40   | <b>Simon Watson</b> , CREST (the Centre for Renewable Energy Systems Technology), UK           | Advances in Numerical Modelling for Wind Resource Assessment   |
| 12:40 - 13:05   | <b>Gilles Flamant</b> , CNRS-PROMES, France  | Trends in concentrating solar power and fuels  |
| <b>13:05 - 14:15</b>  | <b>Lunch</b>   |  |

| Session: Materials and technologies for photovoltaics |  |  |
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| 14:15 - 14:40   | <b>Jef Poortmans</b> , IMEC, the Netherlands                                 | New and advanced material R&D opportunities in the domain of photovoltaics   |
| 14:40 - 15:05   | <b>Chinho Park</b> , Yeungnam University, South Korea                        | Low-cost, earth-abundant SnS thin film solar cells   |
| 15:05 - 15:30   | <b>Abdallah Ougazzaden</b> , UMI-CNRS-GT, France/USA                         | New generation of solar cells for CPV applications   |
| 15:30 - 15:55   | <b>Alexander Colsmann</b> , Karlsruhe Institute of Technology (KIT), Germany | Eco-friendly fabrication of organic solar cells  |
| 15:55 - 16:20   | <b>Yvan Cuminal</b> , IES-University of Montpellier, France                  | Multi-junctions PV concentrator solar cells, state of the art. Interest of antimonide compounds                                      |
| <b>16:20 - 16:45</b>                                  | <b>Break</b>   |  |
| Session: Materials and technologies for storage       |  |  |
| 16:45 - 17:10   | <b>Rémi Dedryvère</b> , Université de Pau et des pays de l'Adour, France     | Lithium-ion batteries for electrochemical storage of renewable energy: Aging processes at electrode materials/electrolyte interfaces |
| 17:10 - 17 :35  | <b>Brigitte Pecquenard</b> , ICMCB-CNRS, France                              | All-solid-state thin film battery, an efficient miniaturized power source  |
| 17:35-18:00   | <b>Rajeev Ahuja</b> , Uppsala University, Sweden                             | Hydrogen storage & production from materials science point of view   |
| 18:00 - 18:25   | <b>Xavier Py</b> , CNRS-PROMES, France                                       | Natural and recycled materials for high temperature thermal energy storage   |
| <b>18:25 - 19:30</b>                                  | <b>AMREN Poster session</b>  |  |

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| Session: Towards Manufacturing of Photovoltaics |   |   |
| Time  | Speaker   | Presentation Title  |
| 08:55 - 09:20                                   | <b>Friedrich Kessler</b> , Zentrum für Sonnenenergie und Wasserstoff-Forschung (ZSW), Germany             | New concepts for high efficiency and low cost in-line manufactured flexible CIGS solar cells                                      |
| 09:20 - 09:45                                   | <b>Radovan Kopecek</b> , International Solar Energy Research Center Konstanz e.V. (ISC Konstanz), Germany | Future bifacial module technology for desert applications   |
| 09:45 - 10:00                                   | <b>Alberto Soraci</b> , ETRERA_2020, Italy  | ETRERA_2020: A tool to enhance research and innovation in the MPC   |
| <b>10:00 - 10:55</b>                            | <b>Break</b>  |   |
| 10:55 - 11:20                                   | <b>Ana R. Lagunas</b> , CENER, Spain  | The importance of tests for certification on durability and performance of PV technologies as basis for LCA and EPBT analysis     |
| 11:20 – 11:45                                   | <b>Javier Diaz Berrade</b> , CENER, Spain   | Testing for performance: the requirements to reduce the difficulty of rating PV devices: mature technologies and new developments |
| 11:45 – 12:10                                   | <b>Edgardo Saucedo</b> , IREC, Spain  | SCALEANO: Towards a competitive full solution & high efficiency CIGS industrial technology  |
| 12:10 – 12:35                                   | <b>Lucia Serrano-Lujan</b> , Cartagena Polytechnical University, Spain                                    | Life Cycle Analysis for energy applications: a research tool to reduce the environmental impact of photovoltaic modules           |
| 12:35 – 12:45                                   | <b>Abdelilah Slaoui</b> , iCUBE-CNRS, France  | EUROSUNMED Project<br>Closing remarks   |
| 12:45 - 14:00                                   | Lunch   |   |