

We are pleased to present the preview Issue No. 56 of the Superconductivity News Forum.

This issue includes nine presentations made at three conferences: the IRradiation Effects on HTS for Fusion (IREF 23) workshop celebrated in Arona (Italy) which now includes a link to several presentations made in this conference (<https://www.superfusion.org/iref23-program/>), the International Symposium in Superconductivity (ISS 2023) celebrated in Wellington (New Zealand) (<https://iss2023wlg.jp/>) and the Asian Conference on Applied Superconductivity and Cryogenics / International Cryogenic Materials Conference in Asia (ACASC 2023) (<http://www.acasc-2023.com/>). Several additional presentations made at IREF 23, ISS 23 and ACASC 23 were already included in the SNF Issue 55.

From IREF 23 we include here one invited talk from Dr. Leonardo Civale and Dr. Boris Maiorov entitled “Comparative Analysis of Particle Irradiation and Second-phase Additions Effects on the Critical Current Densities of $\text{YBa}_2\text{Cu}_3\text{O}_7$ Single Crystals, Thin Films, and Coated Conductors”.

From ISS 23 we include five invited talks covering issues related to materials, electronics and large scale. The first one was delivered by Dr. Teresa Puig with the title “Transient Liquid Assisted Growth (TLAG), A Method for Increasing Coated Conductors Throughput and Meeting Future.” The second one was delivered by Dr. Yanwei Ma and the title was “High Performance Iron-based Superconducting Wires: Fabrication and Properties.” A third presentation is from Dr. Steven M. Anlage with the title “Effects of Strong Capacitive and Inductive Coupling on Hysteretic rf SQUID Metamaterials.” Finally, two presentations on large scale applications were made by Dr. Kevin Berger on the “Current status and future prospects of the SuperRail project in France” and Dr. Kohei Higashikawa Kohei on “Development of Superconducting Cable with Energy Storage Function for Mass Utilization Society of Renewable Energy.”

From ACASC 23 we include in this issue one plenary presentation (large scale) and two invited presentations (electronics and materials). The plenary presentation is from Dr. Satoshi Awaji with the title “High field Superconducting Magnet Development with HTS - Lessons Learned.” The two invited presentations are from Dr. Xiaoming Xie with the title “Latest Development on Superconductive Sensors, Detectors and Their Applications” and from Dr. Bowan Tao with the title “Highly Efficient Preparation of Double-sided YBCO Thin Films with MOCVD”

We hope that you will find the content of the SNF preview Issue No. 56 informative and interesting. Remember to periodically check back to the site for continuous updates and announcements.

Xavier Obradors and the SNF Editorial Team