

Editorial Forward Issue No. 32

April 30, 2015 (E32). We begin this Issue with five highlights (précis) on recent work published in peer-reviewed journals, which we consider important and thus like to bring these to our readers' attention. Two highlights, STH27 and STH28, address work which might be leading to first practical application of intrinsic Josephson junction tunable oscillators. STH29 describes nanoscale spin valve Josephson junction devices forming an interface between superconductivity and spintronics, which have the potential for compatible memory in energy-efficient SFQ computers. STH30 summarizes fundamental work on optical pumping studies possibly detecting transient phase coherent superconductivity at temperatures reaching 370 K. Finally, STH31 provides first principle demonstration of the "Maxwell Demon", creating temperature difference by separating fast and slowly moving molecules. This work may have importance in future efficient on-chip circuit cooling.

Issue No. 32 also includes the first paper, ST434 by M. Ohkubo, on standardization of superconducting electronic devices. A subsequent paper on standardization of superconducting wires is tentatively scheduled for the July 2015, Issue No. 33.

The remainder of this Issue is devoted to (1) selected invited presentations at the CCA 2014 Workshop and (2) tutorial slide presentations at the KRYO 2014 Workshop. Neither of these workshops publish any proceedings, so such slide presentations provide valuable insight into the work presented and discussed there.

From CCA2014, the International Workshop on Coated Conductors for Applications, we included a selection of one plenary and seven invited presentations. Sustainable achievements in processing by chemical solution deposition technologies are addressed in CRP50, and STP445 demonstrates that physical deposition methods are now becoming mature. Optimization of critical transport currents and mechanical properties of coated conductors are presented in STP439 and STP440, respectively. A magnetic characterization of coated conductors (STP441) can serve as an online quality control, and numerical models of HTS coated conductors (STP442) can be employed to simulate their electromagnetic behavior in a device. While the potential of assembling conductors is presented in STP444, applications in high-field HTS SMES coils are summarized in STP443.

The KRYO 2014 tutorials deserve attention, because they accentuate the biomagnetism and metrology work performed at PTB, the German National Metrology Institute, which is one of the world leaders in these fields.