Preface

About two years have elapsed since the discovery of superconductivity at about 26 K in F-doped LaFeAsO. Within this short period, significant contributions have been achieved and the superconductivity temperature now reaches about 57 K. We also understand that the multiband effect and antiferromagnetic spin fluctuations are two essential ingredients for superconductivity to occur. Improving the T_c to reach higher values and uncovering the superconducting mechanism are the two current major topics in the research of iron pnictide superconductors. In this issue, we publish 10 papers of original research, including: the fabrication of a new superconductor, $\text{Sr}_2\text{VO}_{3-\delta}\text{FeAs}$ with different oxygen deficiencies; new methods to fabricate FeCr and investigation of the far-infrared reflectance; the magnetism and superconductivity in the Co-doped EuFe_2As_2 , the double-doping effect in $\text{LaFeAs}_{1-x}\text{Sb}_x\text{O}_{1-y}\text{F}_y$; and the evolution of magnetism and superconductivity in a Sb-doped FeSe compound. We also present a paper on the low temperature specific heat of Ni-doped Ba122, which demonstrates the absence of line nodes in a superconductor. We hope all these interesting results will stimulate the progress of research on iron-based superconductors and push the field towards two major targets mentioned above.

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