



Registration Form for WFC Scientific Committee

Personal Info.

Name: Baode Sun

Title: Professor

Affiliation: Shanghai Jiaotong University



Research Interest

1. The purifying and refinement of aluminum
2. Precision investment casting of Ni-based superalloy

Main Achievements (<200 words)

Prof. Sun presided over more than 50 research projects, and he published >200 research papers and got >100 patents and 1 PCT. He was awarded 1 National Award for Technological Invention (Second Prize) and 3 Shanghai Award for Technology Invention (First Prize) due to his contributions listed below:

1. Developed an adjusting pressure casting equipment and technology for precision investment casting. The challenge of formation of superalloy castings with large thin-wall ($\leq 1\text{mm}$) for aero engine was broken. Related technologies were successfully applied to fabricated the largest engine turbine TRF castings in China and produced more than 2600 parts for aero engine, making significant contributions to the development of aero engines in China.
2. Two kinds of aluminium-alloy powder cables for long-distance ultra high-voltage (UHV) power transmission and capability expansion were developed. The power cable for long-distance UHV power transmission was applied in 32 of 35 projects in China. And the power cable for capability expansion has high temperature resistance and it was applied in 70% marketing in China. Besides, Prof. Sun developed a new technology and corresponding equipment to purify aluminum alloy by electromagnetic field, and the aluminum with a purity of 6N5 was applied in a kind of infrared detection chip.