



## Registration Form for WFC Scientific Committee

### **Personal Info.**

Name: Yiqing Chen

Title: Professor

Affiliation: Hefei University of Technology



### **Research Interest**

1. Compound Casting of Mg/Al Dissimilar Metals
2. The Mechanism of Hot Tearing of Intergranular Liquid Film of Casting Alloys During solidification Process.

### **Main Achievements (<200 words)**

Two research projects, funded by the Natural Science Foundation of China (NSFC), have been undertaken. The first investigates the wetting behavior of liquid magnesium on solid aluminum cladding in casting, along with the mechanism for inhabiting brittle phases at bonding interfaces. The second project explores the mechanical properties of the single unit of inter-granular liquid films in high-silicon aluminum alloys, focusing on the hot tearing mechanism of these inter-granular liquid films. Significant accolades have been received for various research endeavors. The synthesis and mechanisms of one-dimensional nano-materials via self-catalytic VLS growth earned the second prize in Anhui Province Natural Science. Key technologies related to ultra-large diameter hot-mold centrifugal ductile iron pipes achieved the second prize in Anhui Province Science and Technology Progress Award. Development of new material liners for wet mills and high thermal stability aluminum alloy pistons garnered second prizes in Anhui Province's Science and Technology Progress Award. Moreover, the development of high-speed railway fastening parts also secured the second prize in Anhui Province Science and Technology Progress Award. More than 100 academic papers have been published.