

中国材料进展

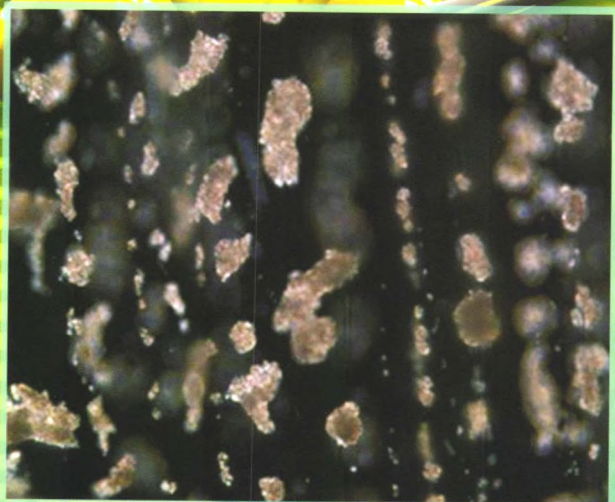
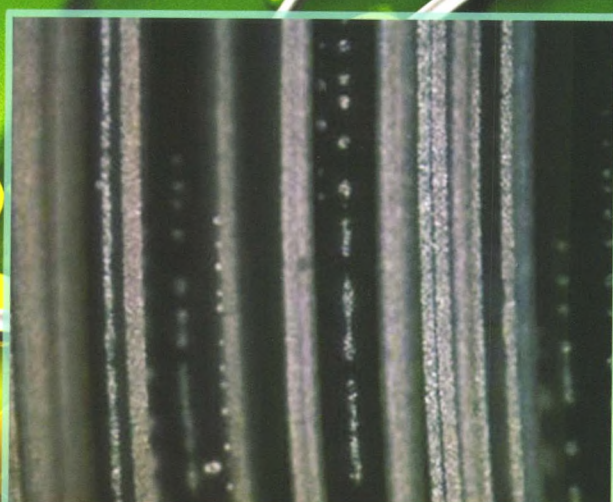
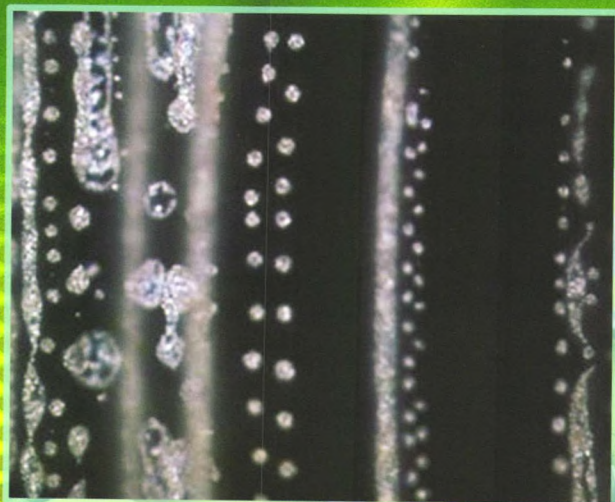
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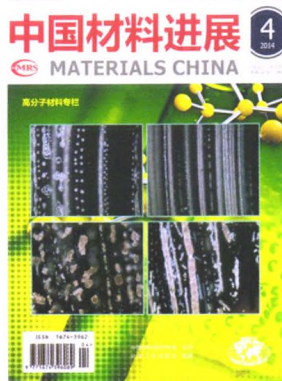
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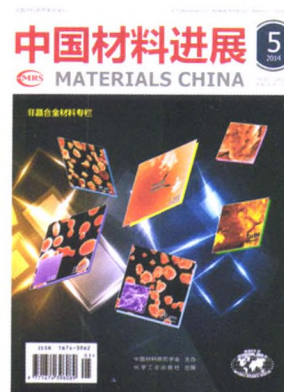
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The State Key Laboratory of Solidification Processing is completed and accepted in 1995, based on the original State Key Discipline of Casting Major in the support unit - Northwestern Polytechnical University, and has been developed into a State Key Laboratory supported by state national level discipline-Materials Science and Engineering. There are 112 staffs in the Laboratory at present, within whom are: 4 academicians, 6 National Outstanding Youth Science Foundation winners, 4 Chair Professor under the Cheung Kong Scholars Program, and 23 other prize-winners. Among the researchers, there are 49 professors, 43 doctoral supervisors, which form a group with high basic-quality, reasonable age-structure and strong potential and advantages engaging in scientific research and technological innovation.

The Laboratory has the following three research directions: modern solidification theory, accurate forming of materials and advanced aerospace materials. Based on these three directions, a series of researching stages are established, within which are: Precision casting technology of complex thin-wall castings, directional solidification stage, deep under-cooling rapid solidification, solidification stage of transparent model alloy, ultra-high temperature composite material research, special function material research stage, rare metal manufacturing research stage, advanced metal research stage, refractory metal research stage and plastic material forming research stage. There are serials of world's high-level material machining, manufacturing and forming equipment, many of which are made by the researchers of the Laboratory. Meanwhile, there are a lot of universal testing equipment for the material structure and property analysis. Based on the tenet of open to the world, a world-class, the Laboratory keeps long-term and frequent cooperation and exchange with the high-level research institutions over the world. It publishes guidelines of open subject at home and abroad, accepting visiting researchers over the world. Meanwhile, the Laboratory is the deputy director unit of Chinese Mechanical Engineering Society Casting Branch.

