

Advanced Materials Research Group

project summary

Project Title	Development of New Thermal Barrier Coatings (TBCs) for Next Generation Gas Turbine Applications
Researcher	Miss Liu Qu email: emxlq1@nottingham.ac.uk
Project Summary	<p>I am a third-year PhD candidate in the University of Nottingham under the supervision of Prof Kwang-Leong Choy. My project focuses on the material improvements and novel compositions for the development of new thermal barrier coatings. I am investigating the thermal conductivity of the ceramics so as to optimise the microstructure and to achieve the greatest resistance to heat transfer. This project is very important and interesting, for it combines both experiment and modelling in studying the mechanism of the thermal conductivity. Furthermore, varied applications of thermal barrier coatings including gas turbines in an aero-engine, are among the most critical components working in the most severer environment. Researching the chemical, physical and mechanical aspects of such ceramic materials is highly motive to further contribute to next generation of aircrafts in aero industry.</p>

