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#### Brief of the stay at the University

Firstly I would like to express my deep thanks to Dr. Yasunori Miura who invite me to join the Venture Business Laboratory of Yamaguchi University. I really enjoyed the stay. It is the longest stay at Yamaguchi University after I graduated from here. The first time I come to Yamaguchi University was on October 12 of 1982 as one of Chinese Government-supported students. After graduation here, I have had three times of short visit to Yamaguchi University. Maybe there is different direction of my viewpoint the Japan and former University, but China is changing quickly but Yamaguchi is also changing with different speed.

Dr. Y. Miura prepared with me a good arrangement for the VBL visiting period. I spend almost with him on the analytical scanning electrical microscopy (ASEM) to investigate the microstructures of high temperature ceramic materials. As Science building was renewed and moving period, I spent several days on searching of information in the University Library. In order to show my talk by computer diagram at science building on February 21, 2002, it takes few days to translated from Chinese to Japanese which our Chinese computer does not used it due to its diffferent computer language.

## **VBL** lecture

I explain my recent research on high temperature materials from grain boundary and its properties at Meeting Room of Science II Building. Materials formed at high temperature is mainly Si, C or silica or carbides which are used for industrial purposes together with easy formation of "meteoritic impact reaction" on the earth. My talk consist with my introduction, Organization of Chinese University, and my recent research as follows:

- 1) Educational and research backgrounds: graduate University of Tokyo at doctoral course in 1988, and professor of Tsinghua (Seika in Japanese sound) University after 1992. I was visiting as cooperation project on the Oak Ridge National Laboratory, Atlanta Georgia Institute of Technology, The University of Leeds, Max-Planck Institute in Stuttgart, and Japan Fine Ceramics Center in Nagoya.
- 2) Chinese University: Chinese universities are reorganized 15 State-Key (Jyu-ten) university, together with departments and research fields at all Chinese universities which is faster than Japanese university reorganization finally.
- 3) Research topics: Main topics of my talk are microstructure design and properties of advanced ceramics materials for high temperature applications. It is interesting which I found Antarctic meteorite paper of Dr. Miura on calcium phosphate minerals on "stony meteorite" as an important indicator of bio-material and bio-ceramic materials which I am also studying as advanced ceramic materials. Silicon carbide materials as industrial purpose can find also in carbonaceous meteorites who will have new shape surface formed at cosmic condition with strong radiation.

### **Future Collaboration**

On this visiting we have similar materials formed high temperature condition also in natural samples of meteorites and impact materials. I found his paper of "calcium phosphate minerals" in Japanese Antarctic meteorites which is my similar materials of advanced bio-ceramic materials. Silicon carbide is also important advanced materials in industrial purpose, which is found in carbonaceous meteorite with different shape formed by strong cosmic ray condition.

# Summary

I found many connections between natural and advanced materials in my short visiting time on VBL in Yamaguchi University.