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THE MOST MEMORIAL MOMENTS OF MY SCIENTIFIC CONTACTS WITH PROFESSOR V. GROMOV FROM SIBERIAN STATE UNIVERSITY OF INDUSTRY (RUSSIA)

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I am Professor Guoyi Tang, who has been working as the executive director of the Institute of Advance Materials at the Graduate School at Shenzhen, Tsinghua University, P.R. China between 2003 to 2018. As early as 1996, when I started to engage in the studies on the electro-plastic processing technology for metals in China, I have been already aware of the outstanding research results in the relevant fields from Russia. During the academic visit to North Carolina State University in the United States from 2001 to 2003, I carried out a research work in collaboration with Professor H. Conard, who is a world-famous leader in the electro-plastic research field. Meanwhile, for the first time Prof. H. Conard introduced me to meet Prof. Trosiky and Prof. Victor Gromov, who are outstanding professors in the field of electro-plastic research in Russia.

In 2003 I was assigned as the executive director of Advanced Materials Institute at the Graduate School at Shenzhen, Tsinghua University right after my return in China. Then I established the first electro-plastic processing technology research center in Shenzhen. By focusing on engineering problems, various advanced processing technologies for difficult-to-process metals based on the electro-plastic effect were successfully developed in this center. These include electro-plastic drawing, electro-plastic stamping, electro-plastic rolling, acoustic-electric coupling ultra-precision machining, and etc.

At the same time, more intensive collaborations with Russian scientists such as Professor V. Gromov from Siberian State University of Industry were formed. In May 2007, the two parties organized the China-Russia Metal Electro-plastic research symposium for the first time in Shenzhen, China [1]. A comprehensive collaboration agreement was also assigned with support of the president of Siberian State University of Industry and the head of Graduate School at Shenzhen, Tsinghua University. Since then the two parties experienced a 15-year close collaboration (Fig. 1, 2). The China-Russia symposium of metal electro-plastic processing technology has been gradually developed into an international conference under the enormous efforts from both parties. To date such conference has been held for ten times in Shenzhen, Beijing, Moscow, Tomsk, Altai, London and Seoul, respectively [2 – 6]. Scientists and scholars from dozens of countries have participated in this event (Fig. 3 – 7). Both Siberian State University of Industry and Tsinghua University were involved in the organization committee of

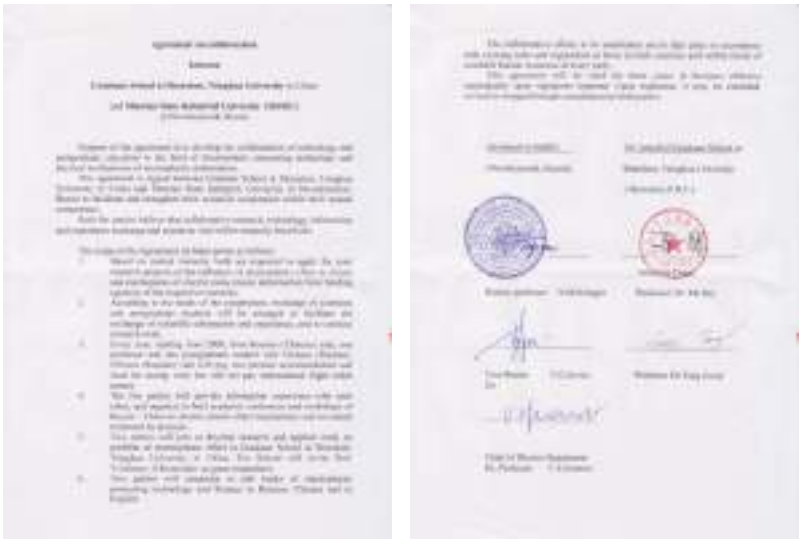

Fig. 1. The collaboration agreement between Siberian State University of Industry and Graduate School at Shenzhen, Tsinghua University

Fig. 2. Participants of the first conference, Shenzhen, China

Fig. 3. Moscow, Russia

Fig. 4. Shenzhen, China

Fig. 5. Shenzhen, China

Fig. 6. Shenzhen, China

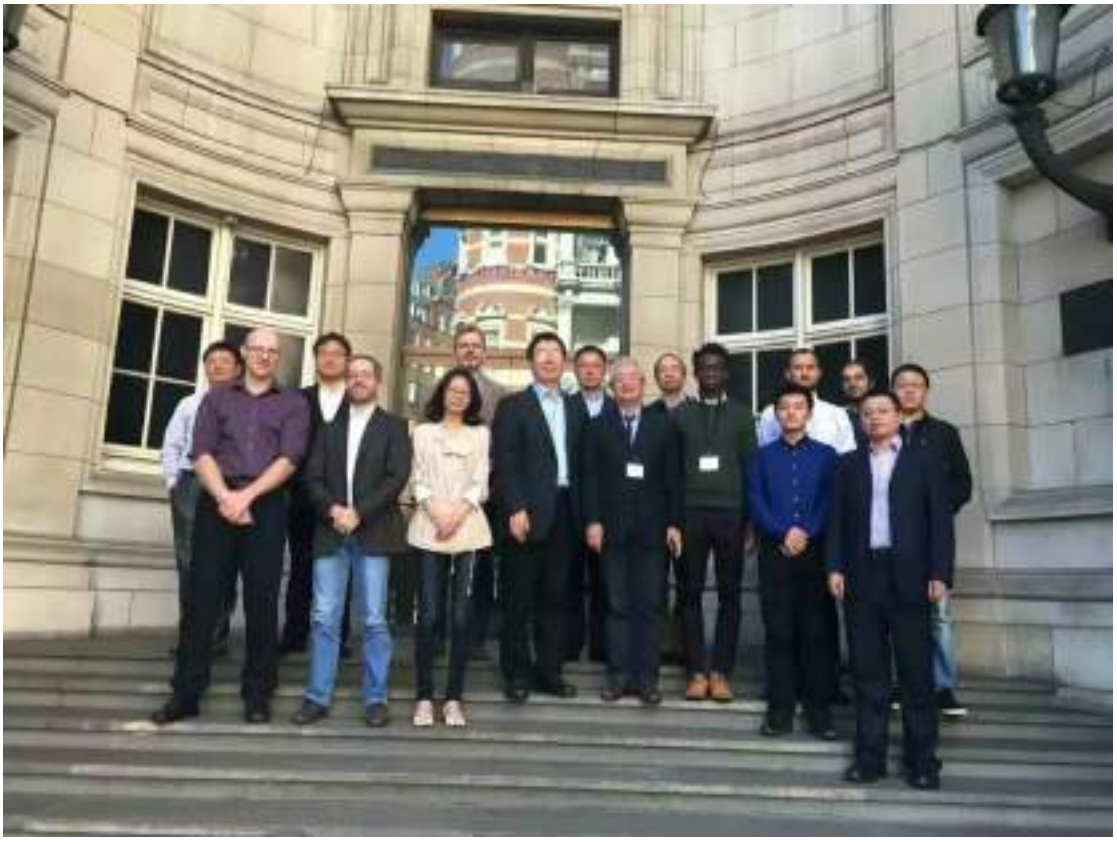

Fig. 7. London, UK

each conference. Moreover, the press house of Siberian State University of Industry has published several special issues for the conference. All these activities have greatly promoted the progress of research on the metal processing under external fields and the international collaborations within the relevant fields.

Photos the Tsinghua- Siberian State University organization international symposiums (Fig. 2 – 7).

Under the framework of the collaboration agreement between the two parties, the short-term oversea academic visiting program for postgraduate students was also built up and developed. Two PhD candidates (Dr. Roman Filipiev and Dr. Oxana Stolboushkina) from Siberian State University of Industry have entered my laboratory at the Advanced Materials Institute of the Graduate School at Shenzhen, Tsinghua University (Fig. 8, 9) to carry out our joint research work. By working with Chinese professors, scholars and students during their visit in China, both Russian students not only felt the positive academic atmosphere and ethos of Tsinghua University, but also gained a more comprehensive and in-depth understanding of Chinese history and culture.

Fig. 8. Photos of Dr. Roman Filipiev during his visiting in China

Fig. 9. Photos of Dr. Oxana Stolboushkina during her visiting in China

In the past years, the two parties have been jointly worked on various topics including development of high-energy pulsing generator for electro-plastic processing, acquisition and analysis of high-energy electrical pulse signals, applications of electro-plastic technology on metal (i.e. Mg, Al and Ti Al-

loy and steels) forming and surface modification, and electric explosive alloying technology. Numbers of co-authored scientific papers were successfully published based on these collaborations. Especially, the international cooperation project of electric explosive alloying technology was funded by the National Foundation of China and Russia. Moreover, years of cooperation experiences between the two parties have brought two individuals enormous collaborative potentials in each other's country, and remarkably promoted the academic exchanges and cooperation between China and Russia.

I am really willing to see more and more strengthened collaborations in wilder fields between the two parties being established, and more and more young scholars' exchange visit being promoted in the future. I also deeply believe that both parties will make greater contributions to the friendly exchanges and cooperation between China and Russia in the field of science and technology.

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