

The Henryk Niewodniczański INSTITUTE OF NUCLEAR PHYSICS POLISH ACADEMY OF SCIENCES

Radzikowskiego 152, 31-342 Kraków, POLAND

Phone: +4812662 8282 fax: +4812662 8458 e-mail: pm.zielinski@ifj.edu.pl

Dr Piotr M. Zieliński

Kraków, 30.10.2008

Professor Akira Inaba RESEARCH CENTER FOR MOLECULAR THERMODYNAMICS Graduate School of Science, Osaka University Toyonaka, Osaka 560-0043, JAPAN

Dear Inaba-San,

It is already two months since I have returned from Japan and looking back now I feel obliged to express my gratitude to you and members of your research group.

Thanks to your kind invitation and generous acceptance of my candidature by the President of the Osaka University I had a privilege of working as a research scientist at the Research Center for Molecular Thermodynamics.

Six months which I spent at the Osaka University were related to research program "Thermodynamic studies on molecule-based magnets" and also to in depth calorimetric study of some other nonmagnetic compound which was known to exhibit complicated phase polymorphism. Undoubtedly it was an exceptional opportunity for me to work in the famous research center learning from authors of many valuable scientific papers and at the same time designers of many sophisticated calorimeters.

I was privileged to work with you during calorimetric measurements performed for 6O2OCB, a material of complicated structure of phases including crystalline, liquid crystalline and glassy ones. In course of the study we measured heat capacity in the temperature range from 5 K to 320 K for two different samples of that material. Beside the acquired results it was particularly precious experience for me because of many remarks concerning practical and theoretical aspects of adiabatic calorimetry that you shared with me.

I also had the pleasure to assist Miazaki-San during the study into thermodynamical properties of a molecular magnet which I have brought to Osaka. Despite the small amount of available sample we managed to perform several experiments taking advantage of thermogravimetric analysis, twin-type adiabatic microcalorimeter and also Quantum Design PPMS instrument utilizing heat relaxation technique. The registered data shed light on thermal properties of the compound above room temperature and also gave us valuable information about low temperature magnetic contribution to the specific heat of that material.

I would like to thank your PhD student Hal Suzuki for many inspiring and valuable discussions related to PPMS measurements and analysis of data acquired during our research. Good memories of friendly scientific atmosphere which I experienced in the laboratory, during seminars and discussions with scientists and students in the research center, come back to me now when I write this letter.

My visit in Japan started in March just in time to see and admire the beauty of cherry trees bursting into bloom. I was lucky to see the Osaka Castle and it's gardens and to visit Kyoto at that time, spending unforgettable moments visiting old temples or just taking a stroll along small streets of that beautiful city. I can particularly remember the peace and charm of Ninnaji and Ginkakuji Temples as well as walking along Tetsugaku no michi.

Once more I should thank your students Hal Suzuki, Kazumasa Shimada, Toshikazu Maruoka and Oscar Camacho for they everyday help and company during my stay, several trips to the mountains, journey to Tottori Sand Dunes and Uradome Coast National Park.

I am deeply indebted to all of you for giving me many clues to better understand Japan, its culture, religions and people. Your kindness and hospitality will stay in my memories along with great respect for your scientific knowledge.

Piotr Lielinslin

Sincerely Yours