

Maite Artetxe, University of Basque Country, Spain

“Pyrolysis of high density polyethylene carried out in continuous mode in a conical spouted bed reactor in the 500-700 °C range”

The use of different kinds of plastics has greatly increased in recent years, and the disposal of plastic waste has become a major environmental issue. The thermal and catalytic cracking of plastic waste has been regarded as one of the most feasible plastic recycling method at industrial scale, since used plastic could become a valuable source of chemicals, in addition to gas and liquid fuels. It is well known that an adequate choice of pyrolysis reactor is essential, due to the low thermal conductivity of plastics. The good performance of the conical spouted bed reactor for the continuous thermal or catalytic pyrolysis of plastics has been verified in several works.



Laura Briones, Rey Juan Carlos University, Spain

“Hydroreforming over Ni/h-beta of the thermal cracking products of LDPE, HDPE and PP for fuel production”

In the 90's, feedstock recycling of plastic wastes lived an important development and several facilities were built. Most of them are nowadays out of service because they never were profitable and the huge investments done were never recovered. Then, I think that the future of these processes must be based on lower costs and higher added value of the products. I guess there are three paths to follow: taking advantage of existing facilities, adjusting them to their new purpose; researching on new catalysts and processes in order to reduce operation costs and to increase market value of the products; and improving wastes sorting and collecting systems to achieve a more available high quality feedstock.



(Ms. Inmaculada Suarez on behalf of Ms. Laura Briones)

Shogo Kumagai, Tohoku University, Japan

“Simultaneous silver and benzene recovery from X-ray film”

I am honored to be awarded with this prize. I would like to thank all the participants who showed their interest in our research, and for the fruitful discussions during the ISFR 2011. My special thank goes to Prof. Yoshioka as my supervisor, who supported and encouraged me. This conference gave me an inside look into various methods of plastic recycling as a good experience and motivation for the future. I would like to continue putting effort on being active in the front line of this important research field, contributing to the development in plastic recycling technology.



Jie Liu, Changchun Institute of Applied Chemistry, China

“Effects of additives on the chemical recycling of amina and anhydride cured epoxy resin in subcritical water”

In China, the reuse of waste plastics waste mainly focuses on mechanical recycling. However, chemical recycling can not be replaced for some waste plastic such as complicated plastics, thermosetting composites, etc. Developing a technically and economically feasible chemical recycling process for the plastics waste is most important. Ideally, the wastes plastic are transformed into single component product. For example, waste polyolefin can be converted into carbon and hydrogen, or epoxy resin can be decomposed into several kinds of compounds, and that is what we are doing.



**Shangzhong Zhang, Tokyo Institute of Technology, Frontier Research Center,
National Institute of Advanced Industrial Science and Technology (AIST), Japan**

“Steam gasification of epoxy board with ternary eutectic carbonates”

I am so honored and humbled to have received this award. Thank the ISFR scientific committee for the enjoyable and informative conference from which we got vivid understanding on the importance of recycle system and the current state of platics recycle in the world. The award inspired me to work harder on my graduate research in Dr. Kamo's and professor Yoshikawa's labs. Research on environmental science and technology is definitely meaningful to the friendly world. Best wishes to the ISFR conference next time!

