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Editorial

The contributions collected in this Special Issue were selected from lectures and posters presented at the 14th International Biotechnology Symposium and Exhibition (*IBS2010*) held in Rimini, Italy, 14–18 September, 2010. The fourteen papers exemplify the development of bio-based processes in research areas including Bioenergy, Environmental Biotechnology, and Industrial Biotechnology.

The increasing interest in the exploitation of biomass is the common thread of several of these studies. For instance, one of the papers describes the enzyme-assisted extraction of the bright red carotenoid pigment lycopene from tomato processing waste.

Nowadays, there is a booming scientific interest in the elaboration of lignocellulosic materials. This can be achieved, *inter alia*, by the action of hydrolytic cellulases and oxidative laccases. As described in the first article of this issue, a family of hydrolytic enzymes, originating from a cellulolytic fungus, has been cloned and expressed in *Pichia pastoris*. Laccases are instead the topic of three contributions, spanning from basic enzymology to their exploitation for the modification of lignin and the treatment of olive oil mill wastewaters.

Biodegradation is the trademark of four other contributions presented at the Environmental Biotechnology Section at *IBS2010*. Specifically, they describe the biodegradation of chlorinated pollutants and of natural and synthetic polymers.

Industrial Biotechnology relies on the availability of suitable enzymes. Two papers exemplify the use of hydrolases, selected from among commercially available kits or overexpressed in bacteria, either for their antifouling activity in marine environments or for the stereoselective hydrolysis of L-amino acid esters.

Last but not least, recycling of the biocatalysts *via* their covalent immobilization on solid supports is described in three reports dealing with two hydrolases, a beta-galactosidase and an epoxide hydrolase, and a redox enzyme, the oxidoreductase catalase.

IBS2010 was a very successful conference, attended by more than one thousand five hundred scientists and biotechnology stakeholders. *IBS2012*, the next meeting in this series of biotechnology conferences, will be held in Daegu, South Korea in September, 2012.

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