Project title: Technology for the conversion of agriculture resouces and wastes into D-lactic (D-LA) and (S)-(-)-2-chloropropionic (S-MCP) acids, semiproducts for the synthesis of biodegradable polimers and new forms of herbicides

Acronim: S-MCP (IUNG as a partner)

The aim of the project is to develop the technology of D-lactic (D-LA) and S-2-chloropropionic (S-MCP) acids. D-LA is an intermediate i S-MCP and biodegradable polylactides (PLA) technology. S-MCP is difficult to acces important intermediate in technology of aryloxypropionic herbicides. Within the scope of project will be developed an efficient and selective biosynthesis of D-LA by use of the selected bacteria strain. Investigations will also include a mutagenic modification of Chosen strain. As carbon and nitrogen source will be used cheap raw materials and waste product from agriculture and food industry. D LA will isolated from fermentation broth by extraction with alcohol C5-C8 and esterified. S-MCP will be obtained in solvent-free chlorination of D-LA ester, followed by selective hydrolysis of the resulted S-MCP ester. The developed technologies will be tested in a pilot plant. The project will result in technological documentation installation for D-LA, S-MCP and S-MCP esters production. Documentation allowing the relase of product on the market, in accordance with REACH, will be also prepared. The project will be immplemented by a consortium of Institute of Industrial Organic Chemistry, Synthos Inc. and Synthos Dwory 7 Ltd. Project is closely associated with the research oand implementation profile of IPO and is part of the development strategies of the Synthos Group.