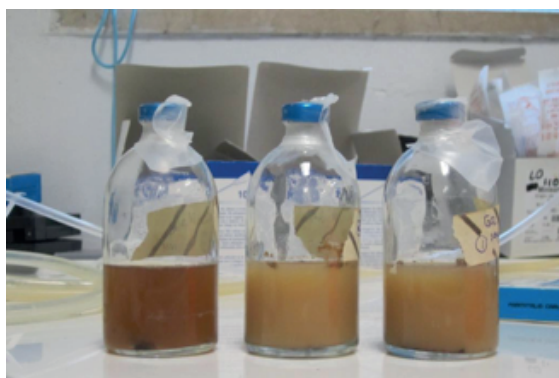


BIOFUELS AND CHEMICALS PRODUCTION FROM INNOVATIVE FERMENTATION PROCESSES OF CRUDE GLYCEROL

Innovations and Benefits - Production of bioethanol, hydrogen and synthetic intermediates for the chemical industry from crude glycerol with innovative anaerobic fermentation processes by selected microbial consortia (RM2011A000480 patent).

Use - Exploitation of crude glycerol, a by-product of the biodiesel industry, as a raw material for the production of advanced biofuels and / or synthetic intermediates (2,3 propanediol, succinic acid) of interest to the chemical industry.

Applications and ongoing Activities - Characterization of the microbial community (as such and of the individual components) used for anaerobic fermentations. Development and testing, on laboratory reactors and pilot plant (50 L), of fed-batch and continuous processes, also with the removal of ethanol from the fermentation broth by gas stripping. Activity carried out as part of an European research project, with the involvement of a national company interested in the industrial development of the process (Innovative Processes of the Technimont Group).



Subsequent phases of activation on crude glycerol of the microbial consortium used for experimental fermentation tests



Experimental equipment for "fed-batch" fermentation with ethanol gas stripping

