Crossing the gap between research and market in chemical engineering: Application to supercritical technology

Industrial development of laboratory research in Chemical Engineering is difficult due to the lack of knowledge for researchers about business behavior and marketing strategies. This inability to communicate makes unable to understand the real potential of new products for financial or management managers. This work presents some information for researchers to be able to understand basic concepts of economy related to the industrial implementation new processes, including examples applied to Supercritical Technology (ST). ST is ready to be widely used for the development of new products especially in the food, nutraceutical and pharmacy industry. In spite of the advantages about production, safety, quality, normative, proven therapeutic characteristics and marketing, the industrial implementation of ST products is scant, because their products are generally considered like simple substitutes for low market niche goods. Based on a Business Plan procedure, several tools and strategies were used to determine and quantify the industrial potential of some ST-based products. The SWOT test and Business Plan strategy were used to identify real possibilities for market application in a proper segment. New emerging opportunities about FDA or EFSA regulations, labelling, market demands and opportunities have to be exploited. New products obtained by ST were demonstrated like economically profitable, according to cost estimation, price curve and some financial ratios.

Biography

Ignacio Gracia is Associate Professor in the Chemical Engineering Department of the University of Castilla La Mancha (Spain). PhD. in Chemical Engineering in the UCLM (1999), Marie Curie postdoctoral Fellowship in the University of Salerno (Italy) in 2002. Has devoted his scientific career to the field of supercritical fluids, focused on natural extracts, waste oil regeneration and polymer synthesis. He is currently working in the synthesis of biocompatible biodegradable polymers with medical applications. Vice president of the Spanish association for the Advancement of High Pressure Technologies (FLUCOMP). Co-author of more than 50 scientific sci publications, two patents (one in application) and ten books and chapters. Supervisor of four PhD's. He worked in more than 50 research projects and 12 projects with private companies, in 22 like Head. Master in MBA (2010). Entrepreneurship price in 2010. Founder of GARLICINSA, private spin-off with a registered product: ALIBEN®

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