Industrial use of high hydrostatic pressure in food industry: Realities for food safety

High hydrostatic pressure (HHP) also called as ultra high pressure (UHP), high pressure processing (HPP), high pressure pasteurization (HPP) has been studied over 30 years under different names. Recently, it has been branded-patented as “pascalization” and is a “new”, “different”, “non-thermal” food processing method. Its main difference from conventional thermal processing is the addition of the third variable pressure to heat/time combination that already exists making it a 3-D process. More importantly the process is capable of producing industrial food products in a very short time making the process among the fastest food technology in terms of moving from the laboratory research to the market shelves. The process is fast, safe, effective and global producing food-edible products without any additives or preservatives ranging from meat-dairy-seafood-deli to fruit/vegetable juices and even pet food. The global HHP market currently reached to 10 billion USD with over 350 commercial equipment worldwide having a value of 0.3 billion USD. Unfortunately, the products are not evenly distributed over the world map and the facts and myths about this new technology will be discussed.

Biography
Hami Alpas is a Professor in Food Engineering Department at Middle East Technical University, Turkey. He completed his MBA in Total Quality Management from Department of Business Administration METU. He has served as a Visiting Scholar in 1996 and 1998 at University of Wyoming, USA; as a Visiting Scientist in 2001 and 2002 at Ohio State University, USA and as a Visiting Professor in 2006, 2007 and 2008 at University of Bordeaux I, France. His main research areas are: Unit Operations in Food Engineering, Non-thermal Food Processing Technologies, Food Quality, Food Safety and Food Security through Total Food Protection. He is an expert in Food Defense training activities via NCFPD (USA). He has supervised four PhD and 11 MSc thesis in Food Engineering Department. He has 67 international journal articles (SCI) and over 750 citations as well as close to 55 academic presentations in 35 different international meetings. He has completed 15 national, four international projects including EU/JRC, CNRS-EGIDE and NATO ARW/ATC projects. He has authored seven chapters in internationally edited books and has edited three international books by Springer. He has also organized and co-directed three NATO-workshops (ARW-ATC). He is currently Co-Director of EU-FP7 project on Plant Food Security.

imah@metu.edu.tr