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For Immediate Release

Hydro Dynamics Partners with the Continuous Flow Chemistry Experts of Proteaf Technologies

Hydro Dynamics will be partnering with Proteaf Technologies for implementing its Shock Wave Power Reactor cavitation technology in high value continuous processing. Continuous flow chemistry has been widely used in the chemical, pharmaceutical and petrochemical markets.

Hydro Dynamics, Inc. (HDI) of Rome, Georgia (www.hydrodynamics.com) announced today that it will be partnering with Proteaf Technologies (Proteaf) of Palos Verdes Estates, CA (<http://www.proteaf.com>) for implementing its Shock Wave Power Reactor (SPR) cavitation technology in high value continuous processing. Continuous flow chemistry through process intensification has been widely used in the chemical, pharmaceutical and petrochemical markets for decades. The continuous chemistry has been especially gaining interest in pharmaceuticals due to its potential for improved process safety, quality, production capacity and yield as well as space savings and reduced reagent use.

Utilizing the shockwaves of cavitation, the SPR can often use its process intensification to allow traditionally batch reactions to be converted to true continuous reactions. HDI has implemented this commercially in applications such as biodiesel transesterification, allowing increases in yield and product quality.

Proteaf provides HDI a conduit to an exciting array of applications and customers well suited for the SPR. "Proteaf's technical expertise and experience in continuous chemistry make them a perfect partner to work with to expand our work in markets such as pharmaceuticals", explains Doug Mancosky, VP of R&D at HDI. "Proteaf tempers their technical solutions with strong underlying business knowledge to offer clients a complete picture of the benefits of process intensification."

About Hydro Dynamics

Hydro Dynamics is the developer of a patented cavitation process intensification technology called the ShockWave Power Reactor (SPR), enabling customers to solve critical mixing and heating problems. Reactors are operating on four continents with well-known customers in applications as diverse as increasing biogas yields to mixing petroleum drilling mud to more

efficient homogenization and pasteurization of liquid eggs. The SPR allows customers to significantly decrease costs and increase profits, often with environmental and safety benefits.

About Proteaf Technologies

Proteaf offers scalable application specific solutions based on off-the-shelf instrumentation supported by custom engineering and chemistry research and development services. We offer Lab-to-Manufacture Continuous Process Intensification Solutions for Highly Exothermic Reactions, Gas/Liquid/Solid Reactions, Highly Corrosive Reactions, Hazardous or Explosive Reactions, Fast and Slow Reactions, Continuous Crystallization, Workup and Extraction. We implement continuous processing into your development program through Feasibility Studies, Process Research, Reactor Design, Business Case Studies and Grant Writing. Our academic and industrial partnerships allow us to work in a variety of ways to meet your needs.



Proteaf Logo