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ULTRASOUND AND SONOCHEMISTRY

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# Ultrasonic Production of Nano-emulsions for Bioactive Delivery in Drug and Food Applications

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**Bruno G. Pollet** is Full Professor of Renewable Energy at the Norwegian University of Science and Technology (NTNU). He is also Visiting Professor at the University of Ulster (UK). He was a Visiting Professor at the University of Yamanashi (Japan) as well as Chief Technology Officer at Power and Water (KP2M Ltd, UK) designing and developing energy storage and water purification systems. He was previously Head of R&D at Coldharbour Marine Ltd (UK) working in the area of water treatment/disinfection. He was awarded Diploma in Chemistry and Material Sciences from the Université Joseph Fourier (Grenoble, France), B.Sc. (Hons) in Applied Chemistry from the Coventry University (UK) and M.Sc. in Analytical Chemistry from The University of Aberdeen (UK). He also gained his Ph.D. in Physical Chemistry in the field of Electrochemistry and Sonochemistry (Sonoelectrochemistry) under the supervision of Profs. J. Phil Lorimer and T. J. Mason at the Sonochemistry Centre, Coventry University (UK). He has published many scientific publications, articles and books (including three books) in the field of Sonochemistry, Fuel Cells, Electrocatalysis and Electrochemical Engineering (over 200 publications so far).

**Professor Muthupandian Ashokkumar** is Physical Chemist who specializes in Sonochemistry, teaches undergraduate and postgraduate Chemistry and is a senior academic staff member of the School of Chemistry, The University of Melbourne. He is a renowned sonochemist who has developed a number of novel techniques to characterize acoustic cavitation bubbles and has made major contributions of applied sonochemistry to the materials, food and dairy industry. His research team has developed a novel ultrasonic processing technology for improving the functional properties of dairy ingredients. Recent research also involves the ultrasonic synthesis of functional nano- and biomaterials that can be used in energy production, environmental remediation and diagnostic and therapeutic medicine. He is the Editor-in-Chief of Ultrasonics Sonochemistry, an international journal devoted to sonochemistry research with a Journal Impact Factor of 4.8. He has edited/co-edited several books and special issues for journals, published ~350 refereed papers (H-Index: 45) in high-impact international journals and books and delivered over 150 invited/keynote/plenary lectures at international conferences and academic institutions. He is the recipient of several prizes, awards and fellowships, including the Grimwade Prize in Industrial Chemistry. He is a Fellow of the RACI since 2007.

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