Prof. Dr. Rattikorn Yimnirun

Prof.Dr.Rattikorn Yimnirun has been working in the area of dielectric, piezoelectric, and ferroelectric ceramics for more than 20 years, since his student days at a world-famous Materials Research Laboratory of The Pennsylvania State University, from where he obtained his Ph.D. in Materials Science and Engineering (Ceramic Science) under the supervision of Profs. Robert E. Newnham, L. Eric Cross, and Kenji Uchino. He joined Penn State in 1996 and worked on the measurements of electrostrictive coefficients in low-k dielectric materials. His PhD work led to more than 10 publications in international journals. After obtaining his PhD in 2001, he returned to Thailand and started working at Department of Physics, Faculty of Science, Chiang Mai University. He then moved to School of Physics, Institute of Science, Suranaree University of Technology in 2009, where he worked until 2017. Currently, he is working at School of Energy Science and Engineering, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand.

His main research activities include applying the synchrotron-based advanced techniques to characterize various types of functional nanomaterials, investigating the effects on external parameters, such as stress, field amplitude and frequency, and ambient temperature, on electrical properties of ferroelectric materials, and studying the effect of uniaxial stress on electrical properties of ferroelectric materials. His group also works on developing synthetic routes for various perovskite materials. With the specific expertise and interest in dielectric, piezoelectric, and ferroelectric ceramic materials, his research has been focused on understanding mechanism of ferroelectricity in various materials and its correlation with local and average crystal structures. He has a wonderful record of publications in this fast-growing field of functional materials. He has published more than 400 outstanding research publications in international peer reviewed journals of high repute. As a service to the community, he is a regular referee for more than 50 leading journals, some of which he is also the editorial board member. As an expert in dielectrics/ferroelectrics/piezoelectrics, he has been invited to give numerous presentations worldwide. He is a member of many professional and international societies, including IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society (IEEE-UFFC), IEEE-Thailand Section, IEEE Magnetic Society (IEEE-MagSoc), Executive Board of Asian Ferroelectric Association (AFA) and Asian Electroceramics Association (AECA), and The American Ceramic Society-Thailand Chapter (ACerS-Thailand-Chapter). His scientific contributions have been a critical part in bringing in the organizing of various international conferences, in which he has also been a major part of the organizing committee, in Thailand