

Prof. Sakamoto has been involved in the development of high-power gyrotrons (*), which are plasma heating devices, at the Japan Atomic Energy Research Institute (JAERI/JAEA) and the National Institutes for Quantum Science and Technology (QST) since the 1980s, and has led the industry as a pioneer in gyrotron development to date. He significantly improved the performance of the gyrotron through trial and error and design changes from the time when other plasma heating methods, such as neutral beam injectors, were considered superior. His innovations and discoveries contributed to the growing recognition of gyrotrons as a viable heating method. Just to mention a few, he and his team achieved 1MW CW gyrotron for ITER application. After graduating with a Master's degree in nuclear engineering from Kyushu University, he led the design and development of a gyrotron for ITER at QST for many years. He obtained his PhD from Kyushu University in 1993. He has served as a professor at the Institute of Fusion Science, University of Tsukuba and University of Fukui, and as a director of the Plasma and Fusion Society of Japan. He joined Kyoto Fusioneering in April 2021 as an Executive Officer.

From 2015, he worked for IFMIF/EVEDA project as a Project Manager of Japanese team. In 2021, he joined Kyoto Fusioneering ltd. as a Head of Technical Development Department. He has published numerous articles in top-tier conferences and journals and has been recognized with several awards and honors, including the Innovation prize of European Physical Society in 2011 and the John R.Pierce Award for Excellence in Vacuum Electronics in 2022, among others.

