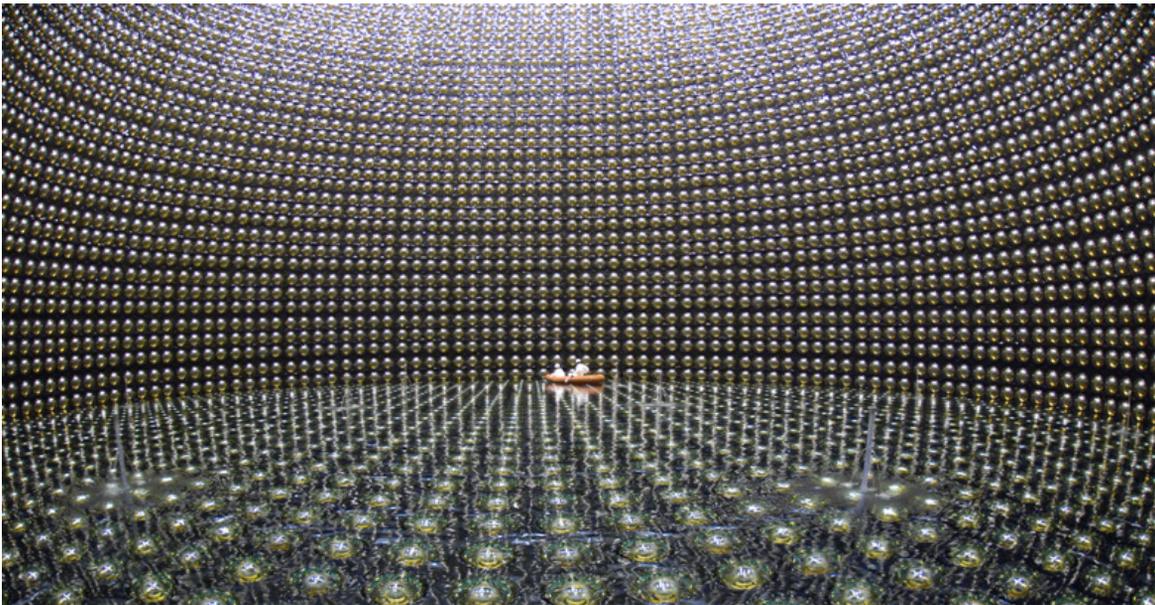


SEPAREL® is used in the Super-Kamiokande detector. By experiment in this facility, Professor Kajita was awarded the Nobel Prize in Physics in 2015.

Professor Takaaki Kajita of the University of Tokyo was awarded the Nobel Prize in Physics in 2015 by the discovery of neutrino oscillations, which indicates the existence of the neutrino's mass, in the Super-Kamiokande detector.

The Super-Kamiokande detector consists of a stainless-steel tank filled with 50,000 tons of ultra-pure water and photo-multipliers on the tank wall. The ultrapure water in the tank is continuously reprocessed in the circulation system to reduce particles of bigger than 0.1 micrometer to 100 particles per cubic centimeter. Moreover, to reduce influence by the scatter of Cherenkov light and background noise, small dusts, ions, bacteria and radon should be removed.

DIC's hollow fiber degassing module, **SEPAREL®**, helps to remove dissolved gas, especially radon and oxygen, in the ultrapure water production in the Super-Kamiokande detector.



Super-Kamiokande detector

Photo courtesy of Kamioka Observatory, Institute for Cosmic Ray Research, University of Tokyo

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