

Fumihiko Tanaka Biography

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Fumihiko Tanaka [文彦 田中] (1947-) was born in Nara, Japan, the son of Bunji Tanaka, a manager for a publishing company, and Kuniko Tanaka, a calligrapher.

Tanaka enrolled at the University of Tokyo in 1966, first in the Department of Architecture of the Faculty of Engineering, but he later transferred to the Physics Department in the Faculty of Sciences, from which he obtained a BSc (1971). There, he also pursued graduate studies, obtaining a MSc (1973) under the supervision of Taro Kihara, and then a DSc (1976) for a thesis entitled “Renormalization Group Theory of Critical Dynamics in Bose Systems”, under the supervision of Masuo Suzuki, within the group of Ryogo Kubo. He subsequently remained a research associate in the group (1976-1981) but left for a two-year sabbatical (1978-1980) to work as a postdoctoral scholar with Sam Edwards in the Theory of Condensed Matter division of the Cavendish Laboratory at Cambridge University. In 1981, he became Associate Professor in the Department of General Education (later of Applied Physics) of Tokyo University of Agriculture and Technology, where he was promoted to professor in 1994, before taking up a professorship in the Department of Polymer Chemistry of Kyoto University in 1997. In 2012, he became emeritus, but remained part-time lecturer at Tokai University until 2018.

Tanaka initially worked on the chemical physics of the liquid state and then on the theory of critical phenomena, before developing an interest for disordered systems and spin glasses, under the influence of Suzuki. This effort eventually led him to collaborate with Edwards, through whom he was extensively exposed to polymer theory. This soft matter topic became his main research thrust afterwards.

Over the years, Tanaka has published several textbooks, including 理工系のための物理学の基礎 [Fundamentals of Physics for Science and Engineering] (1990), ソフトマターのための熱力学 [Thermodynamics for soft matter] (2009), Polymer Physics: Applications to Molecular Association and Thermoreversible Gelation (2011), and 高分子系のソフトマター物理学 [Soft Matter Physics of Polymer Systems] (2013). For his work, he notably received the 2000 Society of Polymer Science, Japan, (SPSJ) Science Award.

Public CV: <http://www7b.biglobe.ne.jp/~ftanaka/>