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B.S., 1947, Ph.D., 1959, both in Physics, University of Tokyo. Employed by the Sony Corporation, Tokyo, Japan, before joining IBM Research in 1960. Since then, has been active in fast switching devices such as heterojunctions and studies of semimetals and narrow gap semiconductors. Currently leads an applied physics group at the Research Center. Nishina Memorial Award (1959), Asahi Press Award (1960), Toyo Rayon Foundation Award (1961), Japan Academy Award (1965). Fellow of both the IEEE and the American Physical Society. Recipient of the Morris N. Liebmann Memorial Prize of the IEEE (1961), and the Ballantine Award of the Franklin Institute (1961).

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