Gareth Thomas
1923 - 2013

Early Work and Promotion of Electron Microscopy

Gareth Thomas is often regarded as the father of electron microscopy in the United States. He was born in 1923 in Maesteg, South Wales, and moved to the United States in 1947 to pursue his doctoral studies in metallurgy. He went on to become a prominent promoter of electron microscopy for the study of materials and was recognized as one of the most influential figures in the field.

Thomas' legacy is represented by the current generation of electron microscopes at NCEM / Molecular Foundry, which are capable of imaging and spectroscopy of individual atoms. His vision and dedication laid the groundwork for the future generation of electron microscopes.

Thomas' time.

The NCEM facility at Lawrence Berkeley National Laboratory, and a workshop on electron microscopy took place at Cambridge University, in 1982. The workshop was part of the overthrow of the idea of making atomic resolution images.

The JEOL JEM-ARM1000 (lower left), which was in operation from 1981 to 2003. Used mainly for in-situ work, it was slightly pre-dated NCEM itself. It was the atomic microscope that featured microscopes capable of "seeing" atoms. Thomas put his lifetime work into this field to lay the groundwork for a microscopy center in the United States.

Building up of the NCEM infrastructure started in 1978, and the Kramer-CHM was installed in 1981. Kramer\'s CHM was an official establishment of NCEM. Kramer's CHM was installed at the Lawrence Berkeley Laboratory in 1981, and it was the first atomic microscope in the world capable of resolving inorganic d-s atoms in a sample. The ARM was used for the first time to lay the groundwork for the future generation of electron microscopes at NCEM.

After Thomas' retirement from the directorship, Ken Keawrattanakul was interim Director, followed by Henry Garrett as Director. Those days have led to the overthrow of the idea of making atomic resolution images.

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