Ladislaus Laszlo Marton Collection, 1932-1970
(4 cubic feet; 13-DB, (.5)DB)

Biography

Ladislaus L. Marton 1901-1979 was a physicist best known for his pioneer work in electron physics, specifically in electron microscopy, electron optics, and electron interferences and scattering. He came to the United States in 1938, and became a naturalized citizen in 1944. He was a member of the faculty at the University of Brussels (Belgium), 1928-1938, and assistant professor from 1933-1938. He was a research physicist at the RCA Manufacturing Company from 1938-1941. He was associate professor of electron optics, head division Stanford University, 1941-1946. He was a physicist from 1946-1970 at the National Bureau of Standards in Washington. Until his death he was an honorable research associate at the Smithsonian Institution.

Scope and Content

This collection consists of materials documenting the history of electron optics, especially electron microscopes. Included are engineering drawings of Marton's devices, designed in Belgium, Stanford and RCA in the 1930s and 1940s; notebooks concerning extensive investigations in electron microscopy; photographs and micrographs concerning development work in this area of physics; correspondence 1930s-702; and reprints of scientific literature relating to Marton's interests.

Provenance

Transferred from the Division of Electricity 3/30/1984

Robert S. Harding, April 1984
# LADISLAUS LASZIO MARTON COLLECTION, 1908-1973

(4 cubic feet; 13-DB, (.5)-DB)

## Container List

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| Photographs of Curd fibers of Sodium Laurate with Observation; and correspondence, 1940-41 |
| Advances in Electronics |
| Outline of Course in Electron Optics |
| "It is for us, the Living..." Book on Stanford |
| Engineering Report "Production of Measurement of Low Pressures" by William Ayer |

For more information contact the Archives Center at archivescenter@si.edu or 202-633-3270
Engineering Report "Production of Measurement of Low Pressures" by Laurence Manning

Engineering Report "Production of Measurement of Low Pressures" by Aldo Viera da Rosa

Engineering Report "Production of Measurement of Low Pressures" by Helio Costa

Engineering Report "Production and Measurement of High Vacuums" by C.D. Maurer

Engineering Report "Production and Measurement of High Vacuums" by Robert W. Fischer

"The Lifetimes of Metastable Negative Ions by L.G. Christophorou (2 copies)

Time-Resolved Laser Fluorescence Spectroscopy by J-F Delpech & J-C Gauthier

Electron Microdiffraction by J.M. Cowley

Charge Transfer Devices by Carol H. Sequin & Michael F. Tompsett

Copies of Author Index, Subject Index, Advances in Electronic and Electron Physics

The Energy Spectrum of Electrons Emitted by Hot Cathode by Wolfgang Franzen & John H. Porter

Electron Micrographs Analysis by Optical Transforms by G. Donelli & L. Paoletti

Electron Beams as Analytical Tools in Surface Research: LEED and AES by L. Fiermans and J. Vennik

Recent Advances in Electron Beam Addressed Memories by John Kelly

X-ray Image Intersifiers by Kirby G. Vosburgh, Robert K. Swank & John M. Houston

Author Index

Subject Index-Adv. in Electron Physics

Subject Index-Adv. in Elec. Physics

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Wire Antennas by P.A. Ramsdale

Characterization of the MOSFET Operating in Weak Inversion by Paul A. Muls, Gilbert J. Declerk, & Roger J. Van Overstraeten


Ion Beam Technology applied to Electron Microscopy by J. Franks

Microprocessors and Their Use in Physics by Anthony J. Davies

Microwave Power Semiconductor Devices Critical Review by S. Teszner and J.L. Teszner

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For more information contact the Archives Center at archivescenter@si.edu or 202-633-3270
10th Electron Ion and Laser Beam Technology Symposium (EILBT file II)

1. Hybrid Computer Aided Synthesis of Thick Electrostatic Electron Lenses by J. Robert Ashley
   - Double - Deflection Aberrations in a Scanning Electron Microscope by E.D. Wolf & K. Amboss
   - The Minimum Beam Diameter Obtainable in Electron Probe Apparatus by A.N. Broers & H.C. Pfeiffer
   - A Computer Analysis of Several Shaped, Two Electrode, Immersion Lenses That Minimize Spherical Aberration by D.L. Fraser, Jr., W.J. Meyers, & T.G. Elser
   - The Third Order Aberrations of Magnetic Electron Lenses by M.B. Heritage
   - Analytical Solution of the Axial Potential for a Three Element Electrostatic Lens by H.G. Parks
   - Experimental Investigation of Energy Broadening in Electron Optical Instruments by Hans C. Pfeiffer
   - Correspondence 1970-1971

2. Electron Ion and Laser Beam Technology Correspondence 1970 & Proposals

3. IEEE 1970 Correspondence

4. Minutes of 10th SEILBT

5. EILBT Request for call for Papers and Acceptance Cards & Programs

6. 10th Electron Ion and Laser Beam Technology Symposium

1. Susskind

2. ELBS Berkley California

3. 8th annual symposium of ELBT University of Michigan April 6-8, 1966

4. *Notebook: papers concerning 11th symposium ELIBT University of Colorado Boulder May 12 - 14, 1971

5. Solid State Materials

6. Molecular Beams:

For more information contact the Archives Center at archivescenter@si.edu or 202-633-3270
Correspondence; Experiments; A-U Material

- Correspondence: Marton & Professor Andrea Pinciroli, 1968-69; Pinciroli papers on Electron Beam Propagation
- Experiment: Glass Blowing
- Experiment: Electrolytic Models of Potential Fields
- Experiment: 1 Production & Measurement of Low Pressures
- Experiment: 3 Production & Measurement of Low Pressures
- Experiment: 3 Production & Measurement of High Vacuums
- Experiment: Elastic Membrane determination of Electron Paths
- Experiment: Pumping Speed and degassing
- Experiment: Calculation of Electron Paths

- Graph: Potential Distribution between Cylinders spaced one - sixteenth Diameter

- Portraits of Scientists (glass slides)

- 16mm Film on Stanford Electron Microscope
- 16mm Film

Robert S. Harding, April 1984