



# ArchivesSpace

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## Lucy Julia Hayner papers 4078876

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Description is written in: English.

Describing Archives: A Content Standard

### Rare Book and Manuscript Library

Butler Library, 6th Floor  
Columbia University, Mail Code 1127  
535 W. 114th St.  
New York, NY 10027  
Business Number: (212) 854-5153  
Fax Number: (212) 854-1365  
[rbml@libraries.cul.columbia.edu](mailto:rbml@libraries.cul.columbia.edu)  
URL: <http://www.columbia.edu/cu/lweb/indiv/rbml/index.html>

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## Summary Information

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<b>Repository:</b>	Rare Book and Manuscript Library
<b>Creator:</b>	Hayner, Lucy Julia, 1898-1971
<b>Title:</b>	Lucy Julia Hayner papers
<b>ID:</b>	4078876
<b>ID:</b>	MS#0569
<b>Date [inclusive]:</b>	1919-1966
<b>Physical Description:</b>	2.09 linear feet 5 document boxes
<b>Language of the Material:</b>	English , German .
<b>Abstract:</b>	This collection consists of manuscripts, typescripts, manuscript notes, diagrams, correspondence and reprints of the physicist Lucy Julia Hayner (1898-1971).

### Preferred Citation

Identification of specific item; Date (if known); Lucy Julia Hayner papers; Box and Folder; Rare Book and Manuscript Library, Columbia University Libraries.

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## Biographical / Historical

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A specialist in atomic and electronic physics, Lucy Hayner graduated from Barnard College in 1919. Her teaching career at Columbia began in 1920 when she received her MA degree. She conducted research at the Cavendish Laboratory in Cambridge, UK from 1924 to 1925 and completed her PhD in 1926. She then worked for three years in the research laboratory of General Electric Co. on problems of electron emission in vacuum tubes. After returning to Columbia in 1929, she taught in and later headed the Ernest Kempton Adams Laboratory. Hayner also designed and constructed a circular slide rule with Braille markings for blind students. A professor emerita of physics at Columbia University, Hayner died on 23 September 1971 at the age of 73.

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## Summary

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These papers represent Lucy Hayner's work as a student, teaching assistant, research physicist at General Electric, and faculty member at Columbia. There is coursework, research notes, article drafts, offprints and correspondence (professional, personal and with students).

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## Arrangement

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This collection is arranged in two series.

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## Administrative Information

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### Publication Statement

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URL: <http://www.columbia.edu/cu/lweb/indiv/rbml/index.html>

### Revision Description

xml document created by Judith Zupnick. EAD was imported spring 2019 as part of the ArchivesSpace Phase II migration. Added Series II. Papers (2000 Addition) (formerly UA#0025, BIBID 6943103) 2012-07-09 2019-05-20 2019-07-18

### **Restrictions on Access**

This collection is located off-site. You will need to request this material at least three business days in advance to use the collection in the Rare Book and Manuscript Library reading room.

### **Restrictions on Access**

This collection has no restrictions.

### **Immediate Source of Acquisition**

Source of acquisition--Physics Library. Method of acquisition--Transfer; Date of acquisition--1981. Accession number--M-81.

2000 Addition: Two document boxes were transferred by Lalla Grimes, Department of Physics, to the University Archives in 2000. (Accession number 2001-019)

### **Processing Information**

Cataloged Christina Hilton Fenn 06/--/89.

Series II was processed by Arenah Grace in June 2001.

### **Terms Governing Use and Reproduction**

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### **Accruals**

Materials may have been added to the collection since this finding aid was prepared. Contact [rbml@columbia.edu](mailto:rbml@columbia.edu) for more information.

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## **Controlled Access Headings**

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- Nuclear physics -- Research
- Physics -- Research
- Vacuum-tubes -- Research
- Photoemission -- Research
- Photoconductivity -- Research

- Electric lighting -- Research
- Photoelectricity -- Research
- Sulfur -- Research
- Nickel -- Research
- Beryllium -- Research
- Laboratory notes
- Women physicists
- Women college teachers
- Kurrelmeyer, Bernhard
- Columbia University -- Students
- Columbia University -- Faculty
- General Electric Company

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## Collection Inventory

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### Series I. Papers (Original Accession), 1922-1937

#### Scope and Contents

Manuscripts, typescripts, manuscript notes, diagrams, letters, and reprints of Hayner. These papers represent her early work while a graduate student and a teaching assistant at Columbia, 1920-1925, as a research physicist at General Electric, 1925-1928, and while a professor at Columbia, 1929-1937. The papers deal with research on the "shot effect" of electron emissions in vacuum tubes. There are notes on "arc" research, 1924-1925, notes and drafts of her 1925 Columbia Ph.D. dissertation: THE PERSISTENCE OF THE RADIATION EXCITED IN MERCURY VAPOR, files of notes on "secondary emissions" 1922-1928, and notes and manuscript and typescript drafts of her two articles "Shot Effect of Secondary Electron Currents" (PHYSICS VI, Oct. 1935) and "Shot Effect of Secondary Electrons from Nickel and Beryllium" (THE PHYSICAL REVIEW, LII, Nov. 1, 1937). The second article was co-authored by her husband, Bernhard Kurrelmeyer and there are also notes and drafts by him. Also, manuscripts and notes for his article "The Photoelectric Conductivity of Sulphur" (1927); and a few letters from other physicists relating to the publication of these articles.

Title/Description	Instances
Secondary Emissions Research, 1922-1928	box 1
Arc Research, 1924-1925	box 2
Columbia Dissertation, 1925	box 2
Shot Effect Articles, 1935-1937	box 3
Bernhard Kurrelmeyer Article, 1927	box 3

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### Series II. Papers (2000 Addition), 1919-1966

**Scope and Contents**

This series contains the materials transferred to the University Archives in 2000. They include Hayner's lab reports as a graduate student, notes, correspondence, and offprints.

<b>Title/Description</b>	<b>Instances</b>
Student papers, 1919	box 4
<b>Scope and Contents</b>	
(Experiment reports #2-11 for Prof. Harold W. Webb, fall semester 1919.)	
Student papers, 1920	box 4
<b>Scope and Contents</b>	
(Experiment reports #12-20 for Prof. Harold W. Webb, spring semester 1920.)	
Schottky's shot effect offprints, 1919-1925	box 4
<b>Scope and Contents</b>	
(Offprints of journal articles in English and German.)	
Shottky's shot effect notes and correspondence, 1924-1927	box 4
Laboratory notebook, 1923-1927	box 4
<b>Scope and Contents</b>	
(Includes observations, notes, numbers, diagrams, graphs, etc.)	
Correspondence - Professional, 1931-1961	
A-B, 1931-1957	box 4
C-D, 1935-1957	box 4
E-G, 1935-1956	box 4
I-L, 1936-1959	box 4
M-P, 1936-1957	box 4
R-S, 1938-1961	box 5
T-Y, 1932-1961	box 5
Correspondence - Students, 1944-1961	box 5
Correspondence - Student Reports, 1954-1966	box 5
Correspondence - Personal (Columbia), 1937-1963	box 5
Offprints, 1927-1937	box 5

**Scope and Contents**

(Articles by Hayner and by Hayner and Kurrelmeyer.)

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