



Charles A. Rosencrans lab notebooks 2549

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Summary Information

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| Repository: | Manuscripts and Archives |
| Creator: | Rosencrans, Charles A. |
| Source - dnr: | Russell, Art |
| Title: | Charles A. Rosencrans lab notebooks |
| ID: | 2549 |
| Date [inclusive]: | 1929-1959 |
| Physical Description: | 0.4 Linear Feet |
| Language of the Material: | English . |
| Abstract: | Charles A. Rosencrans was an RCA engineer who specialized in radio transmission. His notebooks largely consist of fragmentary handwritten notes from both his career at RCA and from his studies in electrical and mechanical engineering at Lehigh University. |

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Historical Note

Charles A. Rosencrans was an RCA engineer who specialized in radio transmission. Born December 18, 1908, in Orange County, New York, Rosencrans graduated from Lehigh University in 1931 with a Bachelor of Science in Electrical Engineering and, two years later, received a Master's in Mechanical Engineering from the same institution.

In 1934, Rosencrans received a position with the RCA Manufacturing Company in Camden, New Jersey, as an engineer in transmitter development. He filed his first U.S. patent application for an inverse feedback amplifier in 1939, and was granted the patent three years later. In 1947, he became a member of the TV Terminal Equipment Engineering Group, which specialized in the development of TV microwave relay equipment. In 1951, he was granted a patent for an Antenna Switching System, a means for electrically isolating receivers from transmitters with common rather than separate antennas. Throughout the 1940s and 1950s, Rosencrans patented several other inventions in the field of radio transmission, receiving over eleven patents total throughout his career. He died September 29, 1991, in Haddonfield, New Jersey.

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Scope and Content

Charles A. Rosencrans's lab notebooks largely consist of fragmentary handwritten notes from both his career at RCA and from his studies in electrical and mechanical engineering at Lehigh University. The notes are highly technical in nature, and are mostly confined to his work with operating radio transmitters and receivers with a common antenna system, which culminated in his invention of the Antenna Switching System.

Included with some of the notes are schematics and diagrams of transmitter monitors, receivers, and amplifiers. Rosencrans's various U.S. patents are included, along with patent disclosure forms submitted to RCA. Furthermore, incomplete notes from his coursework at Lehigh University not only contain information on electrical engineering, but also include notes on sociological perspectives commonly taught in the early 1930s. Lastly, there are certificates from Rosencrans's involvement with the Lehigh University Reserve Officers Training Corps.

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Arrangement

Arranged alphabetically by document type.

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Administrative Information

Publication Statement

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Access Restrictions

No restrictions on use.

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Controlled Access Headings

- Electrical engineering.
- Radio -- Receivers and reception
- Amplifiers (Electronics)
- College students
- Notebooks.
- Laboratory notebooks
- Patents.
- Research, Industrial.
- Electronic industries
- Electronic circuits
- Russell, Art
- Lehigh University
- RCA Manufacturing Company

Collection Inventory

| Title/Description | Instances |
|-------------------------------------------------------------------------|-----------|
| Biography - <i>Engineers' Digest</i> , 1951 | box 1 |
| Certificates - Lehigh University Reserve Officers Training Corps., 1929 | box 1 |
| Electric Transient Phenomena, undated | box 1 |
| Notes - Engineering and sociology courses, 1933-1934 | box 1 |
| Notes - Miscellaneous , undated | box 1 |
| Notes - TVM Microwave, undated | box 1 |
| Notes and schematics - Receivers and amplifiers , 1954 | box 1 |
| Patents, 1942-1959 | box 1 |