

HUDSON VALLEY COMMUNITY COLLEGE TROY NEW YORK ELECTRICAL ENGINEERING TECHNOLOGY

To determine the Hall Coefficient, R_H , of a semi-conductor through measurements of the Hall voltage.

THEORY:

Suppose that a conventional current (plus to minus) flows through a strip of conducting material (the Hall generator) from left to right in the presence of an external magnetic field directed into the paper. If the current actually consists of moving positive charges, then they themselves will be moving to the right, and the Lorentz force, given by $\vec{F} = q\vec{v} \times \vec{B}$, will be directed upward (toward the top of the page). Under the action of this force, the positive charges will drift toward the upper edge of the strip as they move to the right and will become concentrated there, making the top edge positive with respect to the bottom edge. Soon, the build up of positive charges will become great enough so that the electric field (pointing down, from + to -) will become strong enough to balance the magnetic (Lorentz) force on the moving charges. Thus the upward drift of the charges will be halted and their motion will be in straight lines, from left to right, but with a drift toward the top edge of the strip. Now the top of the strip is positive and the bottom edge is negative. The diagram below shows this case.

LABORATORY REPORT THE HALL EFFECT

MICHAEL COOK
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Technical Physics
Course #
Date of exp.
Date of rep.

MR. KASKOUN

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Office Of Continuing Education • Hudson Valley Community College

DECEMBER 1988

A MESSAGE FROM THE PUBLIC SAFETY OFFICE

Due to the number of recent thefts from student vehicles, the Public Safety Office strongly urges all students to remove property (books, radar detectors, radio, handbags, anything of value) from vehicles while attending classes at HVCC. Also, lock your car doors.

CLASS CANCELLATIONS

Be sure your home and office telephone numbers are on file in the Office of Continuing Education, on lists which have been handed out to all CED classes. If an instructor is unable to attend class due to personal emergency or illness (not weather conditions), if no other coverage is available and this office is notified in sufficient time, we will attempt to contact students as a courtesy. If the College is closed due to inclement weather or other emergency (power outages, etc.) students are responsible for listening to the

Albany (518) 438-6831

Latham (518) 785-5881

DECEMBER HOLIDAYS

The last day of class is December 15. Final exams are held on December 22. For make up of December 23 and Spring Semester work

William C. Kite, Jr., M.D. and Charles H. Kite, M.D.
Professional Corporation

St. Peter's Hospital, Albany, NY 12208
Latham Medical Dental Building, Latham, NY 12110
2348 Fifteenth Street, Troy, NY 12180

Make Appointment
AT 1-3 ON Fri July 21 1988
Day Month Date

SPRING REGISTRATIONS

Spring credit classes in Continuing Education may preregister for

9 am and 3 pm through December 6, 1988. In-Person registration will be held at the Campus Center starting Tuesday, January 10, 4-7 p.m. and continuing Wednesday, January 11, 9 a.m. - 7 p.m., Thursday January 12, 9 a.m. to 3 p.m., Friday, January 13, 9 a.m. to 3 p.m.

PLEASE CALL OR WRITE IF YOU ARE UNABLE TO KEEP THIS APPOINTMENT