

The Physics Experiments of Robert Wichard Pohl (1884–1976)

For decades, Robert Wichard Pohl taught his famous lectures of introductory physics in the old lecture hall of the Physics Institute at Goettingen University. These lectures became the foundation for three volumes entitled „Introduction into Physics“. Now, using Professor Pohl’s original instruments in the same lecture hall in which he taught, this set of videos captures his extraordinary ingenuity and once more brings to life Pohl’s great experimental skills.



Electric wind

Video title: Electric wind

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Series title: The Physics Experiments of Robert Wichard Pohl (1884-1976)

Abstract: At sharp corners, even small voltages can lead to large electric fields. They can ionize the surrounding air, making it electrically conducting.

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Key words: Sharp corners, Radius of curvature, electric field, electrical conduction.

Goal of the experiment: At sharp corners even small voltages can lead to large electric fields which can ionize the air in their vicinity, making it electrically conducting. As the ionized air flows away, a repulsive force arises.

Experimental setup: A light metal wing can rotate freely around a vertical axis. It can be connected to an electrostatic generator or some other power supply.

Experiment: As the voltage increases, the wing begins to rotate, because of the repulsive force exerted by the moving air.

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