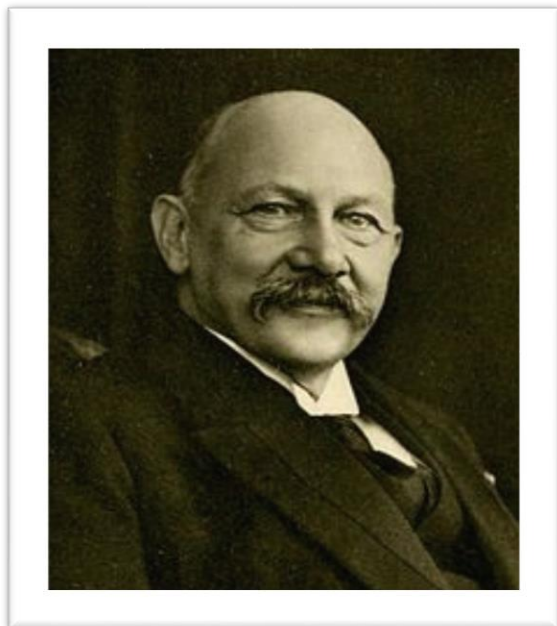


Heike Kamerlingh Onnes

(21 September 1853 – 21 February 1926)



Kamerlingh Onnes was born in Groningen, Netherlands. His father, Harm Kamerlingh Onnes, was a brickworks unit owner. Kamerlingh Onnes obtained his masters in 1878 and a doctorate in 1879 from Groningen University. He worked with famous German physicists Robert Bunsen and Gustav Kirchhoff from 1871 to 1873. After that he taught at the Polytechnic School in Delft (1878 – 1882). He served as a professor in experimental physics at the University of Leiden from 1882 to 1923.

He was honored with the Nobel Prize for Physics in 1913 for his work on low-temperature physics and his production of liquid helium. He investigated how materials behave when cooled to nearly absolute zero temperature and later to liquefy helium for the first time. Kamerlingh Onnes investigated the equations describing the states of matter and studied the general thermodynamic properties of liquids and gases over a wide range of pressures and temperatures. He founded the Cryogenic Laboratory at Leiden as the low-temperature research center of the world. In 1911, Onnes also demonstrated that the resistance of some electrical conductors disappears suddenly at a temperature near absolute zero, and he named this phenomenon superconductivity. (On 8 April 1911, he observed that at 4.2 K the resistance in a solid mercury wire immersed in liquid helium suddenly vanished. He reported that "Mercury has passed into a new state, which on account of its extraordinary electrical properties may be called the superconductive state".

Teachers may suggest students to make a collage of photographs of scientists in physics depicting the advancements in the subject.