

ALEXANDER - VON HUMBOLDT



Information



Languages

Alexander von Humboldt on his travels

The magnetism

Humboldt wandered the world with a map and compass. So

He always knew where north was and could orient himself. But why does the needle of every compass always point north?

The reason for this is so-called magnetism. Our Earth is surrounded by a magnetic field. The magnetic attraction is strongest at the two poles (north and south poles), while it is weakest at the equator.

In 1823 Alexander began to build a worldwide network of magnetic field measuring stations. One of these Measuring stations were in Paris. It was built entirely out of wood and without iron, as iron's magnetic attraction could have distorted the measurement results. This enabled him to research the earth's magnetic field under almost ideal conditions.

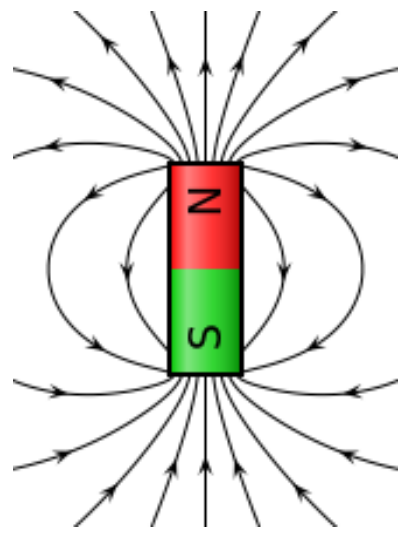


Fig.: The Earth's inner bar magnet
(Source: Geek3, <https://de.wikipedia.org/wiki/Magnetismus>)

In the fall of 1796, Humboldt hiked in the Fichtel Mountains. On the Haidberg near Zell he looked at his compass, but suddenly it went crazy. The needle turned once in a circle and no longer pointed north. The reason for this was a rock called "serpentine", which is magnetic. This can be found in Haidberg. The rock influences the magnetic field and distorts the measurement result of the compass. This fact turned out to be one of his most important discoveries in the Fichtelgebirge, but was not good for his hikes because Alexander von Humboldt always relied on his compass.

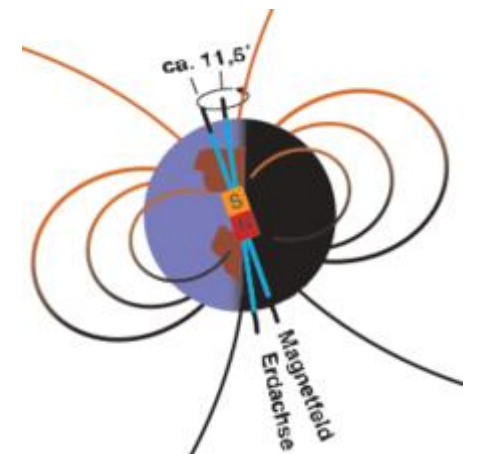


Fig.: The earth's magnetic field
(Source: GFDLHubi, <https://de.wikipedia.org/wiki/Polmagnetismus>)

Humboldt's values

In the 18th century, there was much more inequality and injustice in various areas in European societies. It was precisely in this century that Alexander, aged just 22, went on a journey through Western Europe and stopped in Paris. There he allowed himself to be carried away by the French Revolution. Since then he has always remained true to the ideals of freedom, equality and fraternity.

During his time as a mining official in Franconia, Alexander personally looked after the people in this region and thus continued to pursue his newfound principles. He provided people with jobs, made mining work safer with his own inventions such as breathing masks and miner's lamps, and had a fund (cash) set up from which widows and white people received money if an accident happened to their fathers while mining. Alexander is also committed to education. He wanted to give every young person a secure job through good training. He founded several mountain schools and financed them out of his own pocket because he received no support from other sources. To further spread his knowledge, he also gave free public lectures.

For him, all people were equal: no matter what origin, skin color, religion or gender a person had. In his opinion, every person should have the same number of rights and be treated equally.