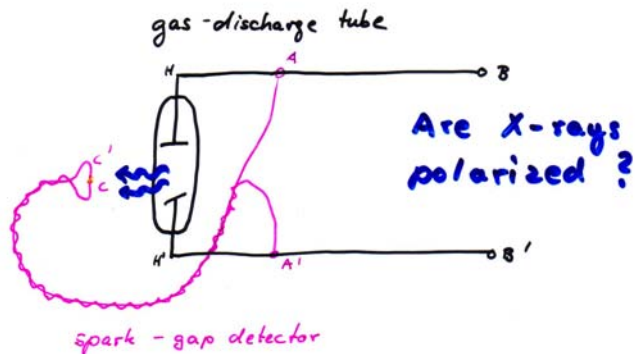


N-Rays

The Miracle of Perception,

1895 Röntgen $\Rightarrow$ X-rays
Wave or corpuscle $\Rightarrow$
that was the question?
 α, β, γ rays show up
"you" expect more stuff

1903 N-Rays show up.
René Blondlot



Discovery of N-Rays



If X-Rays are
polarised and
the detector points
in the right plane,

the spark becomes
brighter!

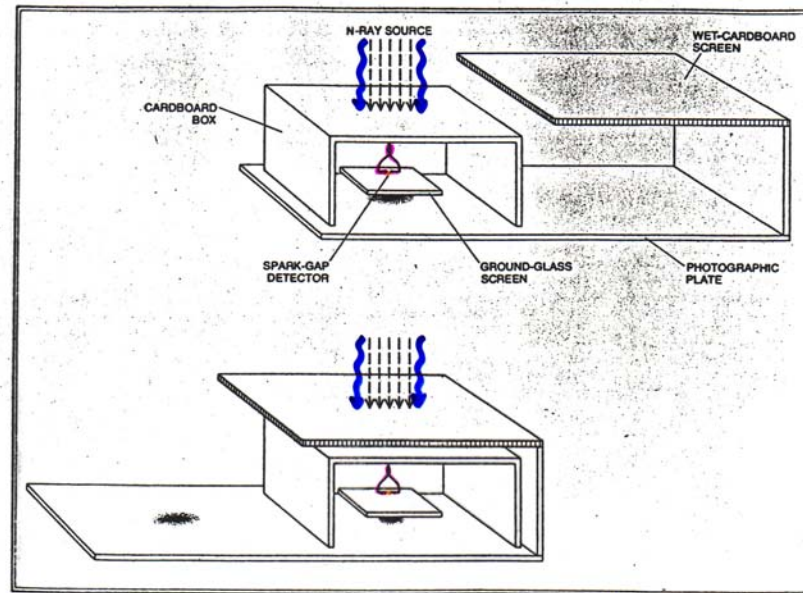
And therefore $\Rightarrow$ X-Rays are Waves
But: Radiation acting on the
spark is bent by a prism.
 $\Rightarrow$ Not X-Rays

$\Rightarrow$ New form of electromagnetic
radiation : n rays

$\Rightarrow$ N rays
Nancy

Could it come
from ordinary light
from the gas discharge tube?

Confirmation of N-Rays



Shield the detector with ^{wet} cardboard
Take a picture!

Screened pictures are dimmer.

• phosphor can also be used to detect N-rays

↳ N-Rays are established.

⇒ Publish 1903

Fight for N-Rays

Gustave le Bon, P. Audollot
Carl Hunter

Claims to have been first.

1904: French Academy of Science: Blondlot 1st!

↳ Prix Leconte

Papers, Papers, Papers...

1903: Jan-June: 4

1904: Jan-June: 54 (3 on X-rays)

1905: — ← ???

R.W. Wood wasted an entire morning!

The Wonders of N-Rays

Seen by: Sparks & Phosphor

N-rays go through:

wood, paper, iron, tin, silver, gold

are stopped by:

water, rock salt

can be lensed:

At lenses & prisms

Emitted by:

electric discharge tubes, gas burners,
glowing silver & iron (some...)

human bodies (nerves + muscles)
sun

With a prism, a source, and a detector
you get a ...

N-ray spectrum

And:

N-rays sharpen your senses!

Death of N-Rays

Some did not see:

Lord Kelvin & Sir William Crookes - GB

Otto Lummer, Heinrich Rubens - D

R.W. Wood - "the all American bastard"

↳ visit to Nancy

→ pub: Nature, Sep 29, 04

Sparks:

He did not see a change.

He asked them to announce when
he would block the N-Rays. ↯

Pictures:

"No" control over exposure time

Spectrum:

It was dark and the bastard stole
the prism. The spectrum stayed. ↯

Senses:

He replaced the N-ray source
and it still worked. ↯

Pain of N-Rays

Wood's report $\Rightarrow$ End of N-Rays
 $\rightsquigarrow$ outside France $\rightsquigarrow$

20 French scientists

Charpentier, Becquerel (II.)

Blondlot was quite ... MAD.

1905: confirmed his findings

- Instructions on how to look.

(and no smoke please)

- some people are too inferior.

only Latin people can see!

• Becquerel used chloroform to
stop metal from emitting N-rays.

Eventually even the French ...

1906: A blind test with lead and steel
was suggested and declined.

Blondlot died in 1930