



Strange Glow: The Story of Radiation

Timothy J. Jorgensen



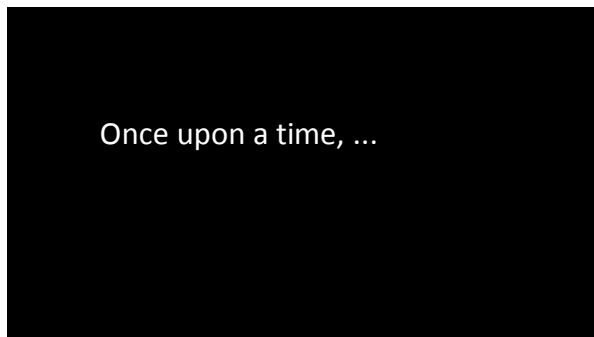
BOOK SALE AND SIGNING

12:15 to 12:45pm

American Institute of Physics Booth

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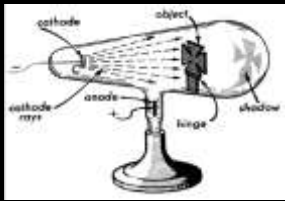








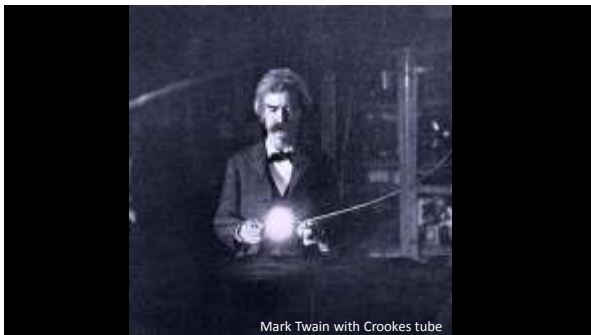




CROOKES TUBE INSTRUCTIONS:

1. Connect electrical power to electrodes.
2. Turn off room lights.
3. Stand in awe.





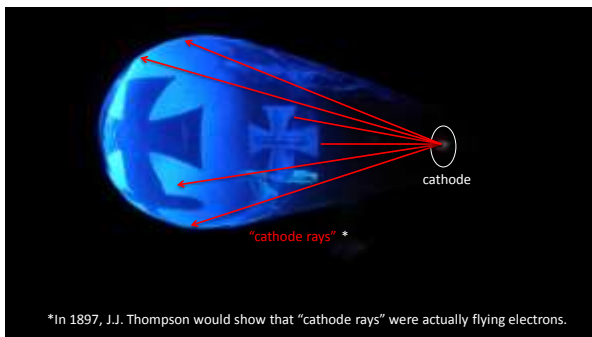
Mark Twain with Crookes tube

Very cool ...

... but what the hell is going on with this Crookes tube thing?!

"A child of five could understand this ...
... someone fetch a child of five."

-- Groucho Marx



*In 1897, J.J. Thompson would show that "cathode rays" were actually flying electrons.

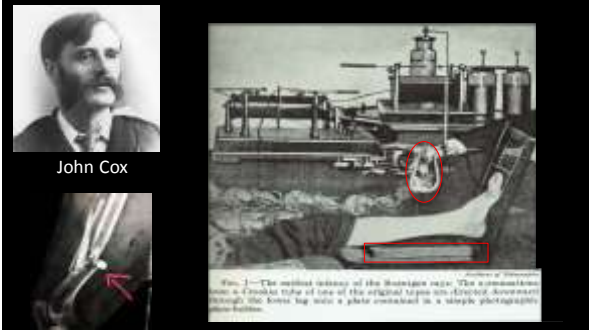
But glowing in the dark is not the only cool thing that a Crookes tube can do!



Wilhelm Roentgen (circa 1896)



Roentgen names them "x-rays" because he has no idea what they are.



John Cox



Emil Grubbe (circa 1896)



1896

"E. H. Grubbe
 12 Pacific Avenue
 Dear Sir:
 This will introduce Mrs. Rose Lee, who has carcinoma of
 the left breast. She is willing to have you make x-ray
 applications. I hope you can help her.
 Yours truly,
 R. LUDLAM, M.D.
 January 28, 1896."

Mrs. Rose Lee was first treated on January 28, 1896.

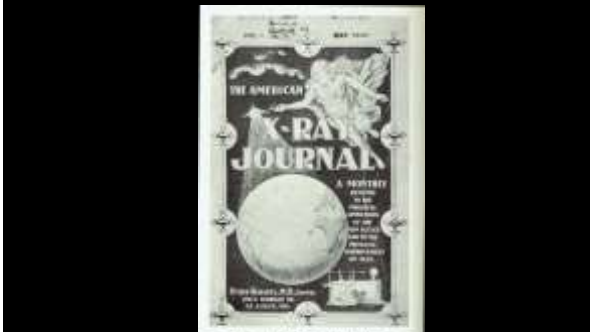
"I continued to make use of x-rays for treatment purposes for several years, [and in some cases] the results were so striking as to cause a sensation."

-- Emil Grubbe

First cancer cure with x-rays reported in 1899.

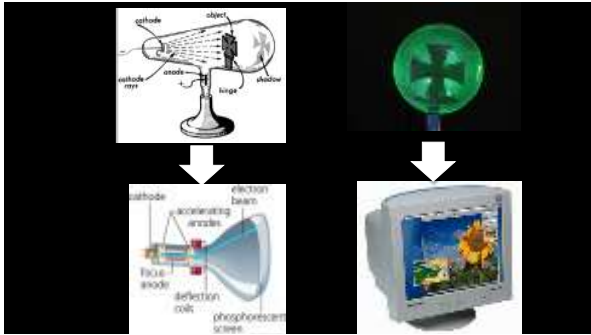


Treating Breast Cancer with X-Rays by Doctor Chicotot, 1907. Artist: Honore Daumier





So where are the Crookes tubes today?



So what ever happened to Roentgen?





Wilhelm Roentgen (Reinhold Felderhoff, sculptor)



A Centaur embracing a fish.

Roentgen and the Crookes tube may be forgotten,
but mankind's curiosity persists ...

... and the the scientists and the public lived happily ever after.

Well, not quite ...





Fukushima Nuclear Accident







Then the questions started:

- Can I eat the sushi ?
- Is it safe to buy a Japanese car?
- Should I be taking iodide tablets before a CT scan?
- Are airport body scanners safe?
- Will my cell phone make me sterile?

Scientist colleagues' advice: **Don't do it!**





REVIEWS

Public		Scientists
<i>Publishers Weekly</i>		<i>Science Magazine (AAAS)</i>
<i>Kirkus Reviews</i>		<i>The Lancet</i>
<i>Literary Review</i>		<i>Physics World</i>
<i>Spectator Magazine</i>		<i>Chemistry World</i>
<i>The Independent</i>		<i>Engineering & Technology News</i>
<i>Choice Reviews</i>		<i>Contemporary Physics</i>
<i>Washington Post</i>		<i>Physics Today</i>
<i>Smithsonian Magazine</i>		<i>Radiation Protection Dosimetry</i>

AWARDS & DISTINCTIONS

- Winner, The 2017 Science Communication Award (Best Book), American Institute of Physics
- Winner, The 2017 PROS of American Publishers
- The Telegraph (London) Best Science Book for 2016 (Ranked Sixth Best Book of the Year)
- Smithsonian Magazine's Best Science Book of 2016
- Physics World's Top Ten Science Books of 2016 ← RANKED 8th !
- One of Choice's Outstanding Science Books of 2016, American Library Association
- A History of Science Best Seller for 2016



... but science has low "curb appeal."

"I approached this book with low expectations. Ho hum, I thought. A book about radiation, written by a professor. ... Probably some dull memoir by a retired old boy. How wrong I was." -- John Gribbin, *Literary Review*

"I expected a lot of the material would be beyond me. ...Whenever I see mathematical equations, I grow queasy. What I did not expect was to enjoy this. ... I certainly did not expect was to get caught up in the stories of the scientists." -- Jacqueline Cutler, *Newark Star Ledger*

(((Ding)))

You've got mail!

Dr. Jorgensen-

This is a first for me but I just had to reach out and say how much I enjoyed your book!

I agreed to teach the Nuclear Science Merit Badge to our Boy Scout Troop. The subject is a bit of a stretch for me but I figured I could stay a day or two ahead of the 11 year olds! In my rush to get prepared, I came across your book. ... What a fantastic find!

You have made an extremely intimidating topic accessible to those with a simple interest. ... Thank you for writing such a readable book about what many think is a subject beyond the reach of the non-scientific mind.

Cheers, M.D.
Centennial, Colorado



"This is the kind of book that, many years ago, awakened my pre-teen mind to the wonders of science and set me on the road to my becoming a scientist. The story told here is, of course, much more detailed, comprehensive and up-to-date, but it is one that never fails to grab the interest. ... Even well-read scientists will learn something new, while non-specialists will be fascinated by the historical anecdotes, and will perhaps find many of their fears alleviated."

-- Anthony Toole, Amazon UK review

“Every kid starts out as a natural-born scientist, and then we beat it out of them.” – Carl Sagan



Why I wrote the book the way I did:





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