



Famous Canadian Scientists and Inventors

Astronauts

Chris Hadfield	Astronaut, musician, scientist. Talk about an over-achiever. My Canadian hero
Marc Garneau	Astronaut and scientist
Roberta Bondar	Astronaut and scientist

Other

James Gosling	Inventor of Java
David Suzuki	Geneticist, science broadcaster, "The Nature of Things"
HSM Coxeter	World renowned mathematician, developer of Coxeter groups
J.C. Fields	Mathematician, founder of the Shields Medal
David Levy	Astronomer, comet hunter, discovered Shoemaker-Levy comet that hit Jupiter

Chemists

Gerhard Gerzberg	chemist, 1971 Nobel Prize
Henry Taube	chemist, 1983 Nobel Prize
John Polanyi	chemist, 1986 Nobel Prize
Michael Smith	chemist, 1993 Nobel Prize
William Francis Giauque	chemist, 1949 Nobel Prize
Rudolph Marcus	chemist, 1992 Nobel Prize
Sidney Altman	chemist, 1989 Nobel Prize

Physicists

John F. Allen	physicist, co-discoverer of superfluidity
Richard Taylor	physicist, 1990 Nobel Prize
Arthur Schawlow	physicist, 1981 Nobel Prize
Bertram Brockhouse	physicist, 1994 Nobel Prize

Economist

Andrew Michael Spence	economist, 2001 Nobel Prize
Myron Scholes	economist, 1997 Nobel Prize
William Vickrey	economist, 1996 Nobel Prize

Medicine

Norman Bethune	medical doctor, more known in China than in Canada, hero to the Chinese.
Sir William Osler	"most influential physician in history"
David Hubel	1981 Nobel Prize in medicine
Frederic Banting	Discovered insulin, won Nobel Prize for Medicine
Charles Best	did much of work with Banting to discover insulin, did not win Nobel Prize

Inventors and Inventions

Alkaline Battery	Lewis Urry	1959
Ardox Spiral Nail	Allan Dove	1954
Basketball	James Naismith	1892
Birch Bark Canoe	First Peoples	
Auto Lubricating Cup	Elijah McCoy (son of former slaves)	1872
Blackberry	Mike Lazaridis	1999
Bloody Caesar	Walter Chell	1969
Canadarm	Spar AeroSpace NRC	1975
Caulking Gun	Theodore Witte	1894
Cobalt-60 Cancer Treatment	Harold Johns	1951
CPR-Mannequin	Dianne Croteau, Richard Brault	1989
Crash Position Indicator	Harry Stevinson	1957
Electric Shaver	Jacob Schick	1923
Electric Oven	Thomas Ahearn	1882
Electric Wheelchair	George Klein	1952
Electron Microscope	James Hillier, Arthur Prebus	1939
Electronic Music Synthesizer	Hugh Le Caine	1945

Explosives Vapour Detector	Lorne Elias	1985
Five Pin Bowling	Thomas E. Ryan	1908
Fog Horn	Robert Foulis	1853
Goalie Mask	Jacques Plante	1959
Green Garbage Bag	Harry Wasylyk, Larry Hansen	1950
G-suit	Wilbur Rounding Franks	1941
Instant Mashed Potatoes	Edward Asselbergs	1962
Instant Replay	CBC Hockey Night in Canada	1955
Insulin	Frederik Banting, Charles Best	1921
Java Programming Language	James Arthur Gosling	1994
Key Frame Animation	Nestor Burtnyk, Marcelli Wein, NRC scientists	1970 Won Academy Award in 1997
Lacrosse	First Peoples	
Light bulb	Henry Woodward, Mathew Evans	1874
Marine Screw Propeller	John Patch	1833
Marquis Wheat	Sir Charles Saunders	1908
Pabulum	Alan Brown, Theodore Drake, Fred Tisdall	1930
Pacemaker	John Hopps, Wilfred Bigelow, John Callahan	1950
Paint Roller	Norman Breakey	1940
Plexiglass	William Chalmers, McGill U.	1931
Poutine	Fernand Lachance	1957
Radio voice Transmission	Reginald Fessenden	1900 First wireless voice transmission in 1900
Robertson Screw	Peter Robertson	1908 The best screw ever developed.
Self-propelled Combine Harvester	Thomas Carroll	1937
Separable Baggage Check	John Mitchell Lyons	1882
First Commercial Radio Broadcast	CFCF in Montreal	1919 KDKA in USA was months after CFCF

John Charles Polanyi

From Wikipedia, the free encyclopedia

John Charles Polanyi, PC, CC, FRSC, O.Ont, FRS, born in Berlin on January 23, 1929, is a Canadian chemist who won a Nobel Prize.

He is the son of distinguished Austrian-Hungarian chemist and philosopher Michael Polanyi, and his wife Magda Elizabeth, and the nephew of influential economist Karl Polanyi.

The family moved from Germany to England in 1933. John Charles Polanyi studied at Manchester Grammar School followed by University of Manchester, where he obtained his B.Sc. in 1949, and his Ph.D. in 1952.

From 1952-1954, he was a Postdoctoral Fellow at the National Research Council Laboratories in Ottawa, Canada, and from 1954-1956 Research Associate at Princeton University.

In 1956, John Polanyi was appointed as a Lecturer at the University of Toronto where he was successively Assistant Professor (1957-1960), Associate Professor (1960-1962) and Professor (1962- present). He was given the (honorific) title University Professor in January 1974. He has been University Professor since 1974 and was a founding Senior Fellow of Massey College.

He is a member of the Queen's Privy Council for Canada, having been sworn in on July 1, 1992. In 1974 he was made an Officer of the Order of Canada and was promoted to Companion in 1979. Polanyi is also a 'Pugwashite'.

Through development of the technique of infrared chemiluminescence he developed the understanding of chemical kinetics.

He also won the 1986 Nobel Prize in Chemistry jointly with Yuan T. Lee and Dudley R. Herschbach "for their contributions concerning the dynamics of chemical elementary processes."

In 1986, in honor of the award of the Nobel Prize in Chemistry, the government of Ontario created the "John Charles Polanyi Prizes", which are awarded annually to Ontario based researchers of outstanding merit. The prizes are given in the same subjects as the Nobel prizes that inspired them and are each worth \$20,000: [1]

In 2004 John Charles Polanyi married the portrait artist Brenda Bury [2].

In 2005, Canada's Natural Sciences and Engineering Research Council created the John C. Polanyi Award, acknowledging excellence in Canadian science or engineering. [3]

In 2007 he was awarded Gerhard Herzberg Gold Medal for Science and Engineering, Canada's highest research honour.

External links

- Official website
- Biography at Nobel e-Museum
- Order of Canada Citation

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Neil Bartlett

From Wikipedia, the free encyclopedia

For the playwright, see Neil Bartlett.

Neil Bartlett (1932 – 2008) was a chemist best known for his work on noble gas compounds. He taught chemistry at the University of California, Berkeley.

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Biography

Neil Bartlett was born September 15, 1932 in Newcastle-upon-Tyne, England.[1] Bartlett's interest in chemistry dated back to an experiment at Heaton Grammar School when he was only twelve years old, in which he prepared "beautiful, well-formed" crystals by reaction of aqueous ammonia with copper sulfate. He explored chemistry by constructing a makeshift lab in his parent's home using chemicals and glassware he purchased from a local supply store. He went on to attend King's College, University of Durham in the United Kingdom where he obtained a Bachelor of Science (1954) and then a doctorate (1958).

In 1958 Bartlett's career began upon being appointed a lecturer in chemistry at the University of British Columbia in Vancouver, Canada where he would ultimately reach the rank of full professor. During his time at the university he made his seminal discovery that noble gases were indeed reactive enough to form bonds. He remained there until 1966, when he moved to Princeton University as a professor of chemistry and a member of the research staff at Bell Laboratories. He then went on to join the chemistry department at the University of California, Berkeley in 1969 as a professor of chemistry until his retirement in 1993. He was also a staff scientist at Lawrence Berkeley National Laboratory from 1969 to 1999. In 2000 he became a naturalized citizen of the United States. He died on August 5, 2008 of a ruptured aortic aneurysm.

Research

In 1962, prior to the work by German chemist Rudolf Hoppe on the first covalent noble gas compound XeF₂, Bartlett prepared one of the first noble gas compounds, xenon hexafluoroplatinate, Xe⁺[PtF₆]⁻. This contradicted common models of the nature of valency, as it was assumed that xenon, like all noble gases, was entirely inert to chemical combination. (This had been explained by such theoretical treatments as Gilbert N. Lewis' octet rule.) He subsequently produced and reproduced several other compounds of xenon: XeF₂, XeF₄, and XeF₆.

Honors

http://en.wikipedia.org/wiki/Neil_Bartlett

Neil Bartlett

Born	September 15, 1932 Newcastle-upon-Tyne, England
Died	August 5, 2008 (aged 75) Walnut Creek, California, United States
Residence	United States
Citizenship	United Kingdom
Fields	Chemistry
Institutions	University of British Columbia Princeton University Berkeley
Alma mater	King's College, University of Durham
Known for	Creating one of the first noble gas compounds

In 1973 he was made a Fellow of the Royal Society (United Kingdom). In 1976 he received the Welch Award in Chemistry for his synthesis of chemical compounds of noble gases and the consequent opening of broad new fields of research in inorganic chemistry. In 1979 he was honored as a Foreign Associate of the National Academy of Sciences (U. S. A.). In 2006 research into the reactivity of noble gases was designated jointly by the American Chemical Society (ACS) and the Canadian Society for Chemistry (CSC) as an International Historical Chemical Landmarks in recognition of its significance to the scientific understanding of the chemical bond. The ACS also has its National Historical Chemical Landmark.[2]

External links

- <http://chem.berkeley.edu/people/emeriti/nbartlett.html>
- http://www.chemistry.msu.edu/Portraits/PortraitsHH_Detail.asp?HH_LName=BartlettN
- Christe, Karl O. (2008)). "Obituary: Neil Bartlett (1932–2008)". *Nature* **455**: 182. doi:10.1038/455182a.

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