

Alfred Nobel and the Nobel Prizes

Pisa, April 10, 2013

Djån nm

Alfred Bernhard Nobel



Born October 21, 1833 in Stockholm, Died December 10, 1896 in San Remo

Chemist, engineer, innovator, armaments manufacturer and the inventor of dynamite.





Norrlandsgatan 11 Stockholm, Sweden





Karolina Andriette

Immanuel

Nitroglycerin (glyceryl trinitrat, propyl-1,2,3 trinitrat)

Invented 1847 by Ascanio Sobrero, Uni. Turin





Saturday September 3, 1864

Nitroglycerin incorporated in kiselguhr (diatomaceous earth) becomes safer and more convenient to handle. This mixture was patented in 1867 as DYNAMITE







1873 PARIS

"A very wealthy, cultured, elderly gentleman, living in Paris, desires to find a lady also of mature years, familiar with languages, as secretary and manager of his household", (1876).





1905

The Nobel Peace Prize 1905 was awarded to Bertha von Suttner.

Author of "Lay Down Your Arms"

Bertha (Kinsky von Chinic und Tettau) von Suttner



Sofie Hess

SAN REMO





1890

BOFORS





1893 Björkborn







Published in Sweden, 2003 Swedish-Esparanto

My dynamite will sooner lead to peace than a thousand world conventions. As soon as men will find that in one instant, whole armies can be utterly destroyed, they surely will abide by golden peace.

Testament

Lag undertertenad alfred Burnhard Vallet forklaren harmed efter moget hetankande mon ytersta vilja i afreende i den egendom jag vid min død kan ex. Terlemna vara foljande:

Ofuer lala men aterstander termigendes fingages på føljande satt : Kapitalet , af utvidningsmännen realistado till salla varderapper, shall utjona en fond hvers vante arligen utdelas som prishelin at dem dom under det förlupne and hafva gjort mine ligheten den atorsta nytta. Rantan delas i fem lika delar som tillfalla: en del den sam inom fylsten område her gjort den usgtejeste upstante den uppfin ning , en del den son har gjort den vigtejaste kenning , upptriset eller fai bestring ; en del den cam har gjort da Vigligante upsticht mom fysiologians eller metrission domin en del den som mom literature har produceror det atministrate i skielikte rigtning ; and en dat at den ash afskeffande eller menskning of stande armeer Samt hildande and yridands of fredatingresser. Presen for fyrin and Kenne utdoler of James them skepsakarinien; får fyridlegiska eller medsinera arkiter of Caralanto Institutes ; Sourchalen) for lite. ratur of alademien , tracklatin bant fai fredafin . faction lett ateras of fer person som nålgar y Norska Startinger. der is men atty kligs wilja att vid priautdelingere inter afarmas faster vid never slags nationalititationsgar delande att den värdigeste erhäller print antongen han in Standinar eller ej.

Isto listamento in hitiis det unda sittija ich upphafun alla mina föregrände testamentanio bestämmeden om sådane stude föreforma ofto min did Susteger anordnan jag liden sorande min uttypskige änsten ach site ett open dette etter ask priseiterno uppekans and ett einen dette etter ask tydliga deds testan of kompletunte inkale integet lides fördrämme i uskalag cremettinninger. Bis akan 37 houman 1845 The whole of my remaining realizable estate shall be dealt with in the following way: the capital, invested in safe securities by my executors, shall constitute a fund, the interest on which shall be annually distributed in the form of prizes to those who, during the <u>preceding year</u>, shall have conferred the greatest benefit on mankind. The said interest shall be divided into <u>five equal parts</u>, which shall be apportioned as follows:

one part to the person who shall have made the most important discovery or invention within the field of physics;

one part to the person who shall have made the most important

chemical discovery or improvement; one part to the person who shall have made the most important discovery within the domain of physiology or medicine; one part to the person who shall have produced in the field of literature the most outstanding work in an ideal direction; and one part to the person who shall have done the most or the best work for fraternity between nations, for the abolition or reduction of standing armies and for the holding and promotion of peace congresses. <u>The prizes for physics and chemistry shall be awarded by the Swedish Academy of Sciences</u>; that for physiological or medical work by the Caroline Institute in Stockholm; that for literature by the Academy in Stockholm, and that for champions of peace by a committee of five persons to be elected by the Norwegian Storting. It is my express wish that in awarding the prizes no consideration whatever shall be given to the nationality of the candidates, but that the most worthy shall receive the prize, whether he be a Scandinavian or not.

Paris an 27 nonen





Bofors

Ragnar Sohlman

Prize-Awarding Institutions

•Physics	The Royal Swedish Academy of Sciences
 Chemistry 	The Royal Swedish Academy of Sciences
•Medicine	The Karolinska Institute
•Literature	The Swedish Academy
•Peace	The Norwegian Parliment

1901



Wilhelm Conrad Röntgen

"in recognition of the extraordinary services he has rendered by the discovery of the remarkable rays subsequently named after him"



HOW ?

The Nobel Committee for Physics

- 5 members (3 years, max. 9 years)
- Chairperson, max. 3 years
- Adjoint members (1-4, change each year)
- Secretary (no time limit)

September 2011



Nomination for the Nobel Prizes

Each year the respective Nobel Committees send individual invitations to thousands of members of academies, university professors, scientists from numerous countries, previous Nobel Laureates, members of parliamentary assemblies and others, asking them to submit candidates for the Nobel Prizes for the coming year. These nominators are chosen in such a way that as many countries and universities as possible are represented over time.

Invitations to nominate (sharp deadline, February 1):

- Members of KVA
- The Nobel Committee
- Earlier Nobel Laureates
- Professors of Physics in the Nordic Countries
- Professors of Physics at selected Universities (changes every year)
- Selected scientists



2012-02-01 Nominations examined

> Nomintions shall be in the hands of the Committee latest at 24.00 on January 31



meeting.









SAN REMO





Villa Nobel















Press Conference



Nobelpriset i fysik 2012





Serge Haroche Collège de France and École Normale Supérieure, Paris, France



David J. Wineland National Institute of Standards and Technology (NIST) and University of Colorado Boulder, CO, USA

"For ground-breaking experimental methods that enable measuring and manipulation of individual quantum systems."








Your Majesties, Your Royal Highnesses, Ladies and Gentlemen,

In his epilogue at the Master's Degree Celebration in Lund 1820, Professor Esaias Tegnér – also a famous poet and author – said

This is Man's wonderful ability: to be able to grasp the inner essence of phenomena, not what they <u>appear to be</u>, <u>but what they mean</u>, <u>and the reality that we see with our eyes</u> <u>is a symbol only of something higher</u>.

<u>What is it that our eyes see? It is light. Everything we see around us –</u> <u>colours, shapes, and objects – comes from light that strikes our eyes.....</u>



Professeur Haroche, au nom de l'Académie Royale des Sciences de Suède, j'ai le privilège de vous transmettre mes plus chaleureuses félicitations pour votre travail exceptionnel. Je vous demande maintenant de bien vouloir vous avancer pour recevoir votre prix Nobel des mains de Sa Majesté le Roi.



Professor Wineland, on behalf of the Royal Swedish Academy of Sciences it is my privilege to convey to you my warmest congratulations for your outstanding work. I now ask you to step forward to receive your Nobel Prize from the hands of His Majesty the King.







Front

васк

"Inventas vitam juvat excoluisse per artes"

"inventions enhance life which is beautified through art."



Kungliga Svenska Vetenskapsakademien har den 9 oktober 2012 beslutat att med det NOBELPRIS

som detta år tillerkännes den som inom fysikens område gjort den viktigaste upptäckten eller uppfinningen gemensamt belöna. Datvid TWineland edi Serge Haroolefor banbrytande experimentella. metoder som möjliggör mätning och styming av enstaka kvantsystem.











10 000 000 SEK =

1 125 000 EUR

"Des Genetz van des Regivaling van Masse und "Swerges (2 = mc2) In des vor-relativantonellen Playark gab es proci vorrisumeder und blangsge-Eshaltung begre, Bilang geretze, die stronge Geslögkeit beausprendetens, mendiale 1) den Jakz von des Gestaltung der Emerge

2) den Tarty vou des Erhaltung des Masas.

Der Satz van der Erstullung det Emergie, welcher schrietwer Ter Tekschundert in noner vollen Allgemeinlicht als griftig min stert worde, entwickelter sich im 19. Igkahundert wesentfrich als einer Tolge eines Jadzes der Medeanek, Man lætraclete ans Penelel, deren Mare zwischen

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mght my2

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V, und die Musse Welst min het holen als Bil- & B als im Kiefsters hundete C der Baling. In C Bl- & B sist diese Kulhöher virloren gegengen; derfier uber hat die Musse hoer eine Geschwindtzkeit V. Es ist, wie mende zuch Habliche in Geschwindtigkeit und nungekehrt ristlig versondel - Mathicke in Geschwindigkeit

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ande for alle Twitchen lagen de setter Hatt hilen, vinn marte finde to die tiche ister C und met v die seren werte heet ingenten Gelsetigen Turchte die Baten Dies verhält wille die de ter het weet ingenten De fally medien derse Soches gelt den July von der Staltung die meehensielen Energie. We allen, wenne des Pendeck schlaesste in die de testing The linke gekongnen dot ? Devon später.

Biber Studen der Usterne - Letting und inter gen vieltigen Ergebiernen gekommen under Zugrundelegnen der Vom auterneren gum kolteren Stoffe floest, ös seten ihnen iket von der örhaltung der Worne "me geleen, Anderenseits aber wurden sitt underkelöcken Zesters "Erfahrungen bekommt, noch denen dereck Teiburg Härme ergengt wird (tenngeng der Inderense). Nachedene sich der Ehy ater lange etgegen

KUNGLIGA SVENSKA VETENSKAPS-AKADEMIEN

ULANG MERANAVANAPARANANANANANANANANANANA

bar vid still sammanlinåde den 9 Novem ber 1988 i jenlighet med föreskrifterna i det av

ALFRED NOBEL

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ALBERT EINSTEIN

för hans förtjänster om den teoretiska fysiken - sårskilt hans upptäckt av lagen för den fotoelektriska offekten. Stockholm den 10 December 1022

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för hans förtjänster om den teoretiska fysiken - sårskilt hans upptäckt av lagen för den folgelektriska effekten. Stockholm den 10 December 1922

Mamuntanto

Kgl. Vet Alas Press.

...for his contributions to the theoretical physics and especially for his discovery of the law for the photoelectric effect.

MANUNCACOMBRENCTO



Nobel Prizes in Physics

Nobel Prize in Physics has been awarded 106 times to a total of 194 Nobel Prize winners from 1901 to 2012. John Bardeen is the only Nobel Laureate who has been awarded the Nobel Prize in Physics twice, in 1956 and 1972. This means that a total of 193 people so far have received the Nobel Prize in physics.

Only two women have so far received the Nobel Prize in Physics, Marie Curie (1903) and Maria Goeppert Mayer (1963)

47 prizes in physics have been given to one laureate.30 prizes in physics have been given to two laureates.29 prizes in physics have been given to three laureates.