

## A CHRONOLOGY OF SOME OF THE MAJOR EVENTS IN MODERN SCIENCE

1896	Discovery of Radioactivity (Becquerel*)	Boer Wars	1899
1898	Isolation of Radium (M. Curie* and P. Curie*)	Italian King Umberto I killed by an anarchist	1900
1901	First transatlantic radio transmission (Marconi*)	Australia becomes a Dominion	1901
1903	Heavier-than-air flights (Wright brothers)	Japan defeats Russia at Tsushima	1905
1905	Special theory of relativity (Einstein*)	First Russian revolution repressed	1905
1909	$\alpha$ particle shown to be He nucleus (Rutherford* and Royds)	Young Turk revolution; Indian Council Act	1908
1911	Nuclear hypothesis (E. Rutherford*)	Sun Yat-Sen overthrows Manchu dynasty in China	1911
1913	Planetary atomic model (N. Bohr*)	The two Wars in the Balkans	1913
1914	Nuclear charge determined from X rays (Moseley)	Assassination of Austrian Archduke Franz Ferdinand in Sarajevo	1914
1915	Theory of continental drift (A. Wegener)	Italy declares war to Austrian Empire	1915
1917	General theory of relativity (Einstein*)	Unsuccessful Irish uprising in Dublin; Soviet revolution	1917
1919	Artificial transmutation by nuclear reactions (Rutherford*)	Versailles Conference after World War One	1919
1926	Quantum mechanics developed (Schrodinger*)	Fascist March on Rome establishes Mussolini's dictatorship	1922
1928	Theory of $\alpha$ radioactivity (Gamow, Gurney, Condon)	Great stock market crash	1929
1930	Neutrino hypothesis (Pauli*)	Foundation of Kolkhoz in USSR; sir A. Conan Doyle dies	1930
1931	First linear accelerator (Sloan* and Lawrence*)	Japan seizes Manchuria	1932
1932	First cyclotron (Lawrence*, Livingston)	The Republic established in Spain	1932
1932	Discovery of positron (Anderson*)	Gandhi 's efforts for an independent India	1932
1932	Discovery of neutron (Chadwick*)	Charles Lindbergh Jr. kidnapped and killed	1932
1932	Proton-neutron nuclear model (Heisemberg*)	Nazi leader Hitler is named German chancellor	1933
1933	Axiomatic theory of Probability (Kolmogorov)	Prohibition ends in USA; III Reich established in Germany	1934
1934	Discovery of artificial radioactivity (I. Curie*, F. Joliot*)	Long march in China	1934
1934	Theory of $\beta$ radioactivity (E. Fermi*)	Italy invades Ethiopia; Pirandello dies	1936
1935	The first RADAR (R. Watson)	Severe persecutions of Jews begin in Germany	1935
1935	Meson hypothesis (Yukawa*)	Civil war in Spain	1936
1938	Discovery of nuclear fission (Hahn* and Strassman)	Great Purge in USSR	1936
1938	Thermonuclear fusion proposed as source of energy in stars (Bethe*)	Hitler occupies Austria and Czechoslovakia	1938
1940	Production of first transuranium element (McMillan* and Seaborg*)	World War Two begins with the German attack against Poland	1939
1942	First controlled fission reactor (Fermi*)	Germany invades Russia; Japanese attack to Pearl Harbour	1941
1945	First fission bomb tested	Germany and Japan surrender	1945
1946	Big Bang cosmology (Gamow)	United Nations charter signed by 50 nations in San Francisco	1945
1946	Development of nuclear magnetic resonance (Bloch* and Purcells)	Italy becomes a Republic	1946

1946	First electronic calculator (ENIAC)	Marshall Plan proposed	1947
1947	Development of radiocarbon dating (Libby*)	Gandhi killed; first war between Arabs and Jews	1947
1947	Discovery of $\delta$ meson (Powell*)	Czechoslovakia occupied by a communist dictatorship	1948
1948	Discovery of transistor (Bardeen*, Brattain*, Schockley*)	George Orwell's <i>1984</i> against all the dictatorships	1948
1949	Shell model of nuclear structure (Mayer*, Jensen*, Haxel, Sues)	Mao Tse-Tung establishes Popular Republic	1949
1952	First proton synchrotron, 2.3 GeV (Brookhaven)	Berlin blockade leads to the formation of NATO	1949
1952	First thermonuclear bomb tested	War of Korea; Vietnam divided	1950
1953	Strangeness hypothesis (Gell-Mann*, Nishijima)	Stalin dies; Beckett's <i>Waiting for Godot</i>	1953
1953	Discovery of double-helix structure of DNA (Watson*, Crick*)	The War in Vietnam	1954
1953	First production of strange particles (Brookhaven)	Warsaw Pact established in East Europe	1955
1955	Discovery of antiproton (Chamberlain* and Segrè*)	Peron deposed in Argentina; Suez Channel crisis	1956
1956	Experimental detection of neutrino (Reines and Cowan)	Hungarian revolution repressed by USSR	1956
1957	Sputnik I flies in the space for the first time in human history	Foundation of European Economic Community	1957
1959	26-GeV proton synchrotron (CERN)	John XXIII succeeds to Pius XII	1958
1960	The first LASER (T.H. Maiman*)	Fidel Castro imposes his dictatorship to Cuba	1959
1961	The first man in the space (J. Gagarin)	The "Year of Africa": 16 new independent states	1960
1964	Quark model of hadrons (Gell-Mann*, Zweig)	Cuban crisis; Vatican Council II in Rome	1962
1967	Electroweak model proposed (Weinberg*, Salam*)	President J.F. Kennedy assassinated in Dallas	1963
1969	Neil Armstrong is the first man on the Moon	Cultural Revolution in China	1966
1970	Charm hypothesis (Glashow*)	Seven-days war in Middle East	1967
1972	500-GeV proton synchrotron (Fermilab)	The "Prague Spring" crushed by Warsaw Pact troops	1968
1974	Charmed quark confirmed (Richter*, Ting*)	Watergate scandal compels president Nixon to resign	1974
1975	Discovery of $\delta$ lepton (Perl)	Vietnamese communists defeat U.S. troops	1975
1977	$\emptyset$ particle discovered and bottom quark inferred (Lederman)	Karol Wojtyla elected Pope with the name of John Paul II	1978
1981	First launching of the Shuttle Columbia	Khomeini establishes the Islamic Republic in Iran	1979
1983	Operation of proton-antiproton collider at 300 GeV (CERN)	Reagan era begins; USA boycott Moscow Olympic Games	1980
1984	Discovery of weak bosons $W^\pm$ and $Z_0$ (Rubbia*)	Gorbachev promotes the "perestroika" in USSR	1985
1989	The World Wide Web (T. Berners-Lee)	Warsaw Pact and USSR collapse	1991
1993	The existence of Black Holes is comproved (VLA)	First treaty of peace between Palestinian and Jews	1993
1994	Top quark existence verified (Fermilab)	The civil war in Bosnia-Herzegovina	1995
1997	First clonation of Dolly sheep; the Pathfinder on Mars	Euro becomes the new monetary unit of EU	1999
2000	Tau neutrino discovered (Fermilab)	Two aircrafts against the Twin Towers in New York City	2001

*(Names marked with an asterisk are Nobel laureates in physics or chemistry, although not necessarily for the work listed.)*