

# Nobel Prizes in Chemistry

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<http://www.chem.yorku.ca/NAMED/>

NOBEL PRIZE CHEMISTRY			
YEAR	NAMES OF SCIENTISTS	NATIONALITY	TYPE OF CHEMISTRY
1901	Jacobus van't Hoff	Dutch	physical
1902	Emil Fischer	German	organic
1903	Svante Arrhenius	Swedish	physical
1904	Sir William Ramsay	British	physical
1905	Adolf von Baeyer	German	organic
1906	Henri Moissan	French	inorganic
1907	Eduard Buchner	German	organic/bioorganic
1908	Lord Ernest Rutherford	British	nuclear
1909	Wilhelm Ostwald	Latvian	physical
1910	Otto Wallach	German	organic
1911	Marie Curie	Polish-French	nuclear
1912	Victor Grignard	French	organic
1912	Paul Sabatier	French	organic
1913	Alfred Werner	German	inorganic
1914	Theodore Williams Richards	American	physical
1915	Richard Martin Willstatter	German	organic

1916	no prize awarded		
1917	no prize awarded		
1918	Fritz Haber	German	physical/industrial
1919	no prize awarded		
1920	Walther Hermann Nernst	German	physical
1921	Frederick Soddy	British	nuclear
1922	Francis William Aston	British	analytical
1923	Fritz Pregl	Slovenian	analytical
1924	no prize awarded		
1925	Richard Zsigmondy	Austrian	physical
1926	Theodor Svedberg	Swedish	physical
1927	Heinrich Wieland	German	organic
1928	Adolf Windaus	German	organic
1929	Hans von Euler-Chelpin	German	bioorganic
1929	Arthur Harden	British	bioorganic
1930	Hans Fischer	German	bioorganic
1931	Friedrich Bergius	German	physical
1931	Carl Bosch	German	physical
1932	Irving Langmuir	American	physical
1933	no prize awarded		
1934	Harold Urey	American	nuclear
1935	Frederic Joliot	French	nuclear
1935	Irene Joliot-Curie	French	nuclear
1936	Peter Debye	Dutch	physical
1937	Sir Walter Haworth	British	organic
1937	Paul Karrer	Russian	organic
1938	Richard Kuhn	Austrian	organic
1939	Adolf Butenandt	German	organic
1939	Leopold Ruzicka	Croatian	organic
1940	no prize awarded		
1941	no prize awarded		
1942	no prize awarded		

1943	George de Hevesy	Hungarian	nuclear
1944	Otto Hahn	German	nuclear
1945	Arturri Virtanen	Finnish	agricchemistry
1946	James Sumner	American	bioorganic
1946	John Northrop	American	bioorganic
1946	Wendell Stanley	American	bioorganic
1947	Sir Robert Robinson	British	organic
1948	Arne Tiselius	Swedish	bioorganic
1949	William Francis Giauque	Canadian-American	physical
1950	Kurt Alder	German	organic
1950	Otto Paul Hermann Diels	German	organic
1951	Edwin McMillan	American	nuclear
1951	Glenn T. Seaborg	American	nuclear
1952	Archer John Porter Martin	British	analytical
1952	Richard Laurence Millington Syngé	British	analytical
1953	Hermann Staudinger	German	organic
1954	Linus Carl Pauling	American	organic
1955	Vincent Du Vigneaud	American	organic
1956	Sir Cyril Hinshelwood	British	physical
1956	Nikolay Nikolayevich Semenov	Russian	physical
1957	Alexander Robertus Todd	Scottish	bioorganic
1958	Frederick Sanger	British	bioorganic
1959	Jaroslav Heyrovksy	Czech	analytical
1960	Willard Libby	American	nuclear
1961	Melvin Calvin	American	bioorganic
1962	John Kendrew	British	bioorganic
1962	Max Perutz	Austrian-British	bioorganic
1963	Giulio Natta	Italian	polymer
1963	Karl Ziegler	German	polymer
1964	Dorothy Crowfoot Hodgkin	British	physical-bioorganic

1965	Robert Woodward	American	organic
1966	Robert Mulliken	American	physical
1967	Ronald Wreyford Norrish	British	physical-organic
1967	Sir George Porter	British	physical-organic
1967	Manfred Eigen	German	physical
1968	Lars Onsager	Norwegian	physical
1969	Sir Derek Harold Richard Barton	British	organic
1969	Odd Hassel	Norwegian	organic
1970	Luis Leloir	French	bioorganic
1971	Gerhard Herzberg	German-Canadian	physical
1972	Christian Anfinsen	Norwegian	bioorganic
1972	Stanford Moore	American	bioorganic
1972	William Stein	American	bioorganic
1973	Ernst Otto Fischer	German	inorganic
1973	Sir Geoffrey Wilkinson	British	inorganic
1974	Paul Flory	American	polymer
1975	Sir John Cornforth	Australian	organic
1975	Vladimir Prelog	Croatian	organic
1976	William N. Lipscomb, Jr.	American	organic
1977	Ilya Prigogine	Russian-French	physical
1978	Peter Mitchell	British	bioorganic
1979	Herbert Charles Brown	American	organic
1979	Georg Wittig	German	organic
1980	Paul Berg	American	bioorganic
1980	Walter Gilbert	American	bioorganic
1980	Frederick Sanger	British	bioorganic
1981	Kenichi Fukui	Japanese	theoretical
1981	Roald Hoffmann	Polish-American	organic
1982	Aaron Klug	South African-British	bioorganic
1983	Henry Taube	Canadian-	inorganic

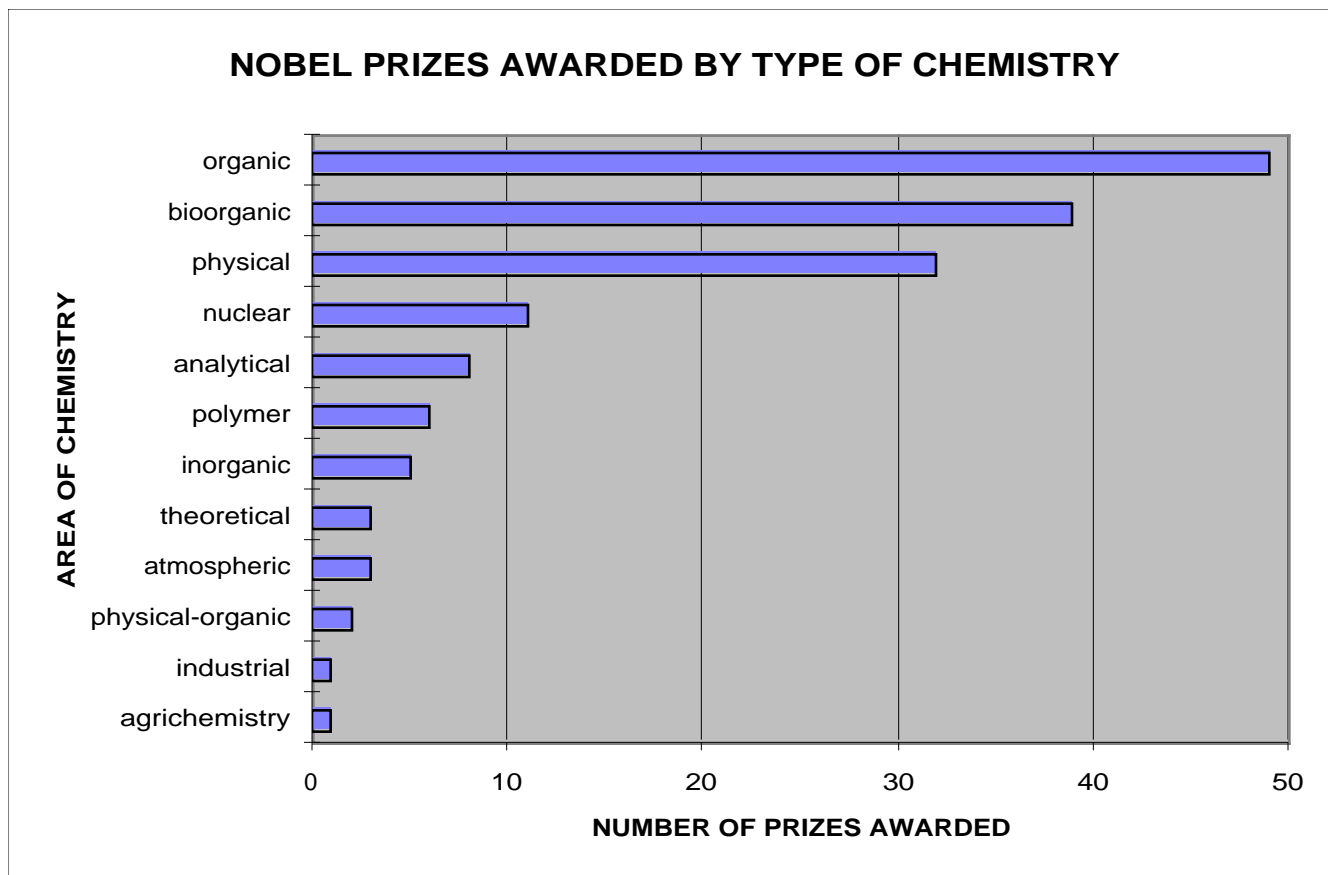
		American	
1984	Robert Bruce Merrifield	American	bioorganic
1985	Herbert Aaron Hauptman	American	mathematical biology
1985	Jerome Karle	American	physical
1986	Dudley R. Herschbach	American	physical
1986	Yuan Tseh Lee	Taiwanese- American	physical
1986	John Charles Polanyi	British-Canadian	physical
1987	Donald James Cram	American	organic
1987	Jean-Marie Lehn	French	organic
1987	Charles J. Pedersen	Korean-American	organic
1988	Hartmut Michel	German	bioorganic
1988	Johann Deisenhofer	German	bioorganic
1988	Robert Huber	German	bioorganic
1989	Sidney Altman	Canadian- American	bioorganic
1989	Thomas R. Cech	American	bioorganic
1990	Elias James Corey	American	organic
1991	Richard R. Ernst	Swiss	physical
1992	Rudolph A. Marcus	Canadian- American	physical
1993	Kary B. Mullis	American	bioorganic
1993	Michael Smith	British-Canadian	bioorganic
1994	George A. Olah	Hungarian- American	organic
1995	Paul Crutzen	Dutch	atmospheric
1995	Mario Molina	Mexican-American	atmospheric
1995	F. Sherwood Rowland	American	atmospheric
1996	Robert F. Curl, Jr.	American	organic
1996	Sir Harold W. Kroto	British	organic
1996	Richard E. Smalley	American	organic
1997	Paul D. Boyer	American	bioorganic

1997	John E. Walker	British	bioorganic
1997	Jens C. Skou	Danish	bioorganic
1998	Walter Kohn	Austrian-American	theoretical
1998	John A. Pople	British-American	theoretical
1999	Ahmed Zewail	Egyptian-American	physical
2000	Alan J. Heeger	American	polymer
2000	Alan G. MacDiarmid	New Zealander-American	polymer
2000	Hideki Shirakawa	Japanese	polymer
2001	Karl Barry Sharpless	American	organic
2001	William Standish Knowles	American	organic
2001	Ryoji Noyori	Japanese	organic
2002	John B. Fenn	American	Electrospray MS
2002	Koichi Tanaka	Japanese	MS of proteins
2002	Kurt Wuethrich	Swiss	NMR of proteins
2003	Peter C. Agre	American	Ion channels in cell membranes
2003	Roderick MacKinnon	American	Water channels in cell membranes
2004	Avram Hershko	Israeli	ubiquitin mediated protein degradation
2004	Aaron J. Ciechanover	Israeli	ubiquitin mediated protein degradation
2004	Irwin A. Rose	American	ubiquitin mediated protein degradation
2005	Yves Chauvin	French	Development of metathesis method in organic synthesis
2005	Richard R. Schrock	American	Development of metathesis method in organic synthesis
2005	Robert H. Grubbs	American	Development of metathesis method in

			organic synthesis
2006	Roger D. Kornberg	American	RNA transcription mechanism in eukaryotic cells
2007	Gerhard Ertl	German	Chemical processes on solid surfaces
2008	Roger Y. Tsien	American	Green fluorescent protein
2008	Martin Chalfie	American	Green fluorescent protein
2008	Osamu Shimomura	Japanese	Green fluorescent protein
2009	Venkatraman Ramakrishnan	American	Ribosome structure
2009	Thomas A. Steitz	American	Ribosome structure
2009	Ada E. Yonath	Israeli	Ribosome structure

<b>NUMBER OF PRIZES AWARDED BY TYPE OF CHEMISTRY</b>	
<b>AREA OF CHEMISTRY</b>	<b>NUMBER OF PRIZES</b>
agricchemistry	1
analytical	8
atmospheric	3
bioorganic	42
industrial	1
inorganic	5
nuclear	11
organic	49
physical	32
physical-organic	2
polymer	6
theoretical	3

Dr. John Andraos, <http://www.careerchem.com/NAMED/NobelChem.pdf>



PRIZE YEAR	NOBEL CHEMISTS	SUPERVISOR	Ph.D.	UNIVERSITY	DATES	Age at Prize
2003	<b>Agre, Peter C.</b>	Pedro Cuatrecasas	1974	Johns Hopkins (MD)	1949 -	54
1950	Alder, Kurt	Otto Diels	1926	Kiel	1902 - 1958	48
1989	<b>Altman, Sidney</b>	Leonard S. Lerman	1967	Colorado	1939 -	50
1972	Anfinsen, Christian B.	Albert B. Hastings (Harvard), Hugo Theorell (Medical Nobel Inst.)	1943	Harvard Medical School	1916 - 1995	56
1903	Arrhenius, Svante	Erik Edlund, Sven O. Pettersson	1884	Uppsala	1859 - 1927	44
1922	Aston, Francis William	Percy F. Frankland, John H. Poynting	1898-1900, 1903-8 (no Ph.D.)	Birmingham	1877 - 1945	45
1905	Baeyer, Adolf von	Robert Bunsen, F. Kekule	1858	Berlin	1835 - 1917	70
1969	Barton, Sir Derek Harold Richard	Ewart R.H. Jones, Ian Heilbron	1942	London	1918 - 1998	51
1980	<b>Berg, Paul</b>	Herman Kalckar (Copenhagen); Arthur Kornberg (Washington at St. Louis)	1952	Case Western Reserve	1926 -	54
1931	Bergius, Friedrich	Arthur Hanzsch	1907	Leipzig	1884 - 1949	47
1931	Bosch, Carl	Johannes Wislicenus	1898	Leipzig	1874 - 1940	57
1997	<b>Boyer, Paul D.</b>	Paul Phillips	1943	Wisconsin	1918 -	79
1979	Brown, Herbert Charles	Hermann I. Schlesinger	1938	Chicago	1912 - 2004	67
1907	Buchner, Eduard	Adolf Baeyer	1888	Munich	1860 - 1917	47
1939	Butenandt, Adolf	Adolf Windaus	1927	Goettingen	1903 - 1995	36
1961	Calvin, Melvin	George A. Glockler	1935	Minnesota	1911 - 1997	50
1989	<b>Cech, Thomas R.</b>	John E. Hearst	1975	UC Berkeley	1947 -	42
2008	<b>Chalfie, Martin</b>	Robert L. Pearlman	1977	Harvard	1947 -	61
2005	<b>Chauvin, Yves</b>				1930 -	74
2004	<b>Ciechanover, Aaron J.</b>		1981	Technion (MD)	1947 -	57
1990	<b>Corey, Elias James</b>	John C. Sheehan	1951	MIT	1928 -	62

1975	<b>Cornforth, Sir John</b>	Sir Robert Robinson	1941	Oxford	1917 -	58
1987	Cram, Donald James	Louis F. Fieser	1947	Harvard	1919 - 2001	68
1995	<b>Crutzen, Paul Josef</b>	Bert Bolin	1968	Stockholm	1933 -	62
1911	Curie, Marie	Henri Becquerel	1902	Sorbonne	1867 - 1934	44
1996	<b>Curl, Jr., Robert Floyd</b>	Kenneth Pitzer	1957	UC Berkeley	1933 -	63
1936	Debye, Peter	Arnold Sommerfeld	1908	Munich	1884 - 1966	52
1988	<b>Deisenhofer, Johann</b>	Robert Huber	1974	TU Berlin, Max Planck Inst. Biochem.	1943 -	45
1950	Diels, Otto Paul Hermann	Emil Fischer	1899	Berlin	1876 - 1954	74
1967	<b>Eigen, Manfred</b>	Arnold Eucken	1951	Georg-August U, Goettingen	1927 -	40
1991	<b>Ernst, Richard R.</b>	Hans Primas	1962	ETH	1933 -	58
2007	<b>Ertl, Gerhard</b>	Heinz Gerischer	1965	Munich	1936 -	71
1929	Euler-Chelpin, Hans von	Emil Fischer; Emil Warburg; Max Planck	1895	Berlin	1873 - 1964	56
2002	<b>Fenn, John Bennett</b>		1940	Yale	1917 -	85
1902	Fischer, Emil	Adolf Baeyer	1874	Strasbourg	1852 - 1919	50
1973	Fischer, Ernst Otto	Walter Hieber	1952	TH Munich	1918 - 2007	55
1930	Fischer, Hans	Theodore Zincke	1904	Marburg	1881 - 1945	49
1974	Flory, Paul	Herrick Lee Johnston	1934	Ohio State	1910 - 1985	64
1981	Fukui, Kenichi	Shinjiro Kodama	1948	Kyoto (eng.)	1918 - 1998	63
1949	Giauque, William Francis	George Ernest Gibson	1922	UC Berkeley	1895 - 1982	54
1980	<b>Gilbert, Walter</b>	Abdus Salam	1957	Cambridge	1932 -	48
1912	Grignard, Victor	Louis Bouveault, Phillipe Barbier	1901	Lyon	1871 - 1935	41
2005	<b>Grubbs, Robert Howard</b>	Ronald Breslow	1968	Columbia	1942 -	63
1918	Haber, Fritz	Carl Liebermann	1891	Berlin-Charlottenberg	1868 - 1934	50
1944	Hahn, Otto	Theodore Zincke	1901	Marburg	1879 - 1968	65
1929	Harden, Arthur	Otto Fischer	1888	Erlangen	1865 - 1940	64
1969	Hassel, Odd	Fritz Haber	1924	Berlin	1897 - 1981	72
1985	<b>Hauptman, Herbert Aaron</b>	Jerome Karle	1955	Maryland	1917 -	68

				(mathematics)		
1937	Haworth, Sir Walter	Otto Wallach	1910	Goettingen	1883 - 1950	54
2000	<b>Heeger, Alan J.</b>	Alan M. Portis	1961	UC Berkeley	1936 -	64
1986	<b>Herschbach, Dudley R.</b>	Edgar Bright Wilson, Jr.	1958	Harvard	1932 -	54
2004	<b>Hershko, Avram</b>	G. Tomkins	1969	Hebrew U, Jerusalem (MD)	1937 -	67
1971	Herzberg, Gerhard	Hans Rau	1928	TU Darmstadt (eng. physics)	1904 - 1999	67
1943	Hevesy, George de	Georg Meyer	1908	Freiburg	1885 - 1966	58
1959	Heyrovksy, Jaroslav	Jan S. Sterba-Bohm	1918	Charles U, Prague	1890 - 1967	69
1956	Hinshelwood, Sir Cyril	Harold Brewer Hartley	1920	Oxford (MA)	1897 - 1967	59
1964	Hodgkin, Dorothy Crowfoot	John D. Bernal	1937	Cambridge	1910 - 1994	54
1981	<b>Hoffmann, Roald</b>	M. Gouterman, W.N. Lipscomb, Jr.	1962	Harvard	1937 -	44
1988	<b>Huber, Robert</b>	Walter Hoppe, P. Karlson	1963	TU Munich	1937 -	51
1935	Joliot, Frederic	Marie Curie, Paul Langevin	1920's	Radium Institute	1900 - 1958	35
1935	Joliot-Curie, Irene	Marie Curie	1920's	Radium Institute	1897 - 1956	38
1985	<b>Karle, Jerome</b>	Lawrence O. Brockway	1943	Michigan	1918 -	67
1937	Karrer, Paul	Alfred Werner	1911	Zurich	1889 - 1971	48
1962	<b>Kendrew, John</b>	William Hodge Taylor	1949	Cambridge	1917 -	45
1982	<b>Klug, Aaron</b>	Douglas Rayner Hartree	1952	Cambridge	1926 -	56
2001	<b>Knowles, William Standish</b>	Robert C. Elderfield	1942	Columbia	1917 -	84
1998	<b>Kohn, Walter</b>	Julian Schwinger	1948	Harvard	1923 -	75
2006	<b>Kornberg, Roger D.</b>	Harden M. McConnell	1972	Stanford	1947 -	59
1996	<b>Kroto, Sir Harold Walter</b>	Richard Dixon	1964	Sheffield	1939 -	57
1938	Kuhn, Richard	Richard Willstätter	1922	Munich	1900 - 1967	38
1932	Langmuir, Irving	Walther Nernst	1906	Goettingen	1881 - 1957	51
1986	<b>Lee, Yuan Tseh</b>	Bruce Mahan	1965	UC Berkeley	1936 -	50
1987	<b>Lehn, Jean-Marie</b>	Guy Ourisson	1963	Strasbourg	1939 -	48
1970	Leloir, Luis	Carl F. Cori (Washington at St. Louis)	1932	Buenos Aires (MD)	1906 - 1987	64
1960	Libby, Willard	Gilbert N. Lewis, Wendell	1933	UC Berkeley	1908 - 1980	52

		Latimer				
1976	<b>Lipscomb, Jr., William N.</b>	Linus Pauling	1946	Cal Tech	1919 -	57
2000	MacDiarmid, Alan G.	Norris F. Hall; Harry J. Emeleus	1955	Wisconsin(1953),C ambridge(1955)	1927 - 2007	73
2003	<b>MacKinnon, Roderick</b>	Christopher Miller	1982	Tufts (MD); Brandeis	1956 -	47
1992	<b>Marcus, Rudolph A.</b>	Carl A. Winkler	1946	McGill	1923 -	69
1952	Martin, Archer John Porter	Sir Charles Martin	1936	Cambridge	1910 - 2002	42
1951	McMillan, Edwin	Edward U. Condon	1932	Princeton	1907 - 1991	44
1984	Merrifield, Robert Bruce	Max Dunn	1949	UCLA	1921 - 2006	63
1988	Michel, Hartmut	Dieter Oesterhelt	1977	Wuerzburg	1948 -	40
1978	Mitchell, Peter	James F. Danielli	1951	Cambridge	1920 - 1992	58
1906	Moissan, Henri	Edmond Fremy	1880	Paris	1852 - 1907	54
1995	<b>Molina, Mario Jose</b>	George C. Pimentel	1972	UC Berkeley	1943 -	52
1972	Moore, Stanford	Karl Paul Link	1938	Wisconsin	1913 - 1982	59
1966	Mulliken, Robert	William D. Harkins	1922	Chicago	1896 - 1986	70
1993	<b>Mullis, Kary Banks</b>	John Brian (Joe) Neilands	1973	UC Berkeley	1944 -	49
1963	Natta, Giulio	Giorgio R. Levi	1924	Milan Poly.Inst. (chem. eng.)	1903 - 1979	60
1920	Nernst, Walther Hermann	Friedrich Kohlrausch	1887	Wuerzburg	1864 - 1941	56
1967	Norrish, Ronald Wreyford	Sir Eric Keightley Rideal	1924	Cambridge	1897 - 1978	70
1946	Northrop, John	John M. Nelson	1915	Columbia	1891 - 1987	55
2001	<b>Noyori, Ryoji</b>	Hitosi Nozaki	1967	Kyoto	1938 -	63
1994	<b>Olah, George A.</b>	Geza Zemplen	1949	Tech.U. Budapest	1927 -	67
1968	Onsager, Lars	Peter Debye	1928	Norges TH	1903 - 1976	65
1909	Ostwald, Wilhelm	Carl Schmidt, Johann Lemberg	1877	Dorpat	1853 - 1932	56
1954	Pauling, Linus Carl	Roscoe G. Dickinson	1925	Cal Tech	1901 - 1994	53
1987	Pedersen, Charles J.	James F. Norris	1927	MIT (M.Sc.)	1904 - 1989	83
1962	Perutz, Max	John Desmond Bernal	1940	Cambridge	1914 - 2002	48
1986	<b>Polanyi, John Charles</b>	Ernest Warhurst	1952	Manchester	1929 -	57
1998	Pople, John Anthony	Sir John Lennard-Jones	1951	Cambridge (mathematics)	1925 - 2004	73

1967	Porter, Sir George	Ronald G.W. Norrish	1948	Cambridge (no Ph.D.)	1920 - 2002	47
1923	Pregl, Fritz	Alexander Rollett, Z. Skraup, W. Ostwald (Leipzig), E. Fischer (Berlin)	1894	Graz (MD)	1869 - 1930	54
1975	Prelog, Vladimir	Emil Votocek	1929	Prague	1906 - 1998	69
1977	Prigogine, Ilya	Theophile de Donder	1941	U Libre de Bruxelles	1917 - 2003	60
2009	<b>Ramakrishnan, Venkatraman</b>	Tomayasu Tanaka	1976	Ohio	1952 -	57
1904	Ramsay, Sir William	Rudolf Fittig	1873	Tubingen	1852 - 1916	52
1914	Richards, Theodore Williams	Josiah Cooke	1888	Harvard	1868 - 1928	46
1947	Robinson, Sir Robert	William H. Perkin, Jr.	1909	Manchester	1885 - 1975	62
2004	<b>Rose, Irwin A.</b>	Bernard S. Schweigert Severo Ochoa (post-doctoral advisor)	1952	Chicago NYU	1926 -	78
1995	<b>Rowland, Frank Sherwood</b>	Willard F. Libby	1952	Chicago	1927 -	68
1908	Rutherford, Lord Ernest	Sir J.J. Thomson	1897	Cambridge	1871 - 1937	37
1939	Ruzicka, Leopold	Hermann Staudinger	1910	TU Karlsruhe	1887 - 1967	52
1912	Sabatier, Paul	Marcellin Berthelot	1880	College de France	1854 - 1941	58
1958	<b>Sanger, Frederick</b>	Albert Neuberger	1943	Cambridge	1918 -	40
1980	<b>Sanger, Frederick</b>	Albert Neuberger	1943	Cambridge	1918 -	62
2005	<b>Schrock, Richard Royce</b>	John A. Osborn	1972	Harvard	1945 -	60
1951	Seaborg, Glenn T.	Gilbert N. Lewis, E.O. Lawrence	1937	UC Berkeley	1912 - 1999	39
1956	Semenov, Nikolay Nikolayevich		1917	Petrograd (St. Petersburg)	1896 - 1986	60
2001	<b>Sharpless, Karl Barry</b>	Eugene E. van Tamelen	1968	Stanford	1941 -	60
2008	<b>Shimomura, Osamu</b>	Hirata	1960	Nagoya	1928 -	80
2000	<b>Shirakawa, Hideki</b>	Alan J. Heeger (Pennsylvania)	1966	Tokyo Institute of Technology	1936 -	64
1997	<b>Skou, Jens Christian</b>		1954	Aarhus (Dr. MD)	1918 -	79
1996	Smalley, Richard Errett	Elliot R. Bernstein	1973	Princeton	1943 - 2005	53
1993	Smith, Michael	Harold B. Henbest	1956	Manchester	1932 - 2000	61

1921	Soddy, Frederick	Ernest Rutherford (post-doc)	1898	Oxford (BA)	1877 - 1956	44
1946	Stanley, Wendell	Roger Adams	1929	Illinois	1904 - 1971	42
1953	Staudinger, Hermann	Daniel Vorlaender	1903	Halle	1881 - 1965	72
1972	Stein, William	E.G. Miller	1937	Columbia	1911 - 1980	61
2009	<b>Steitz, Thomas Arthur</b>	William N. Lipscomb	1966	Harvard	1940 -	69
1946	Sumner, James	Otto Folin	1914	Harvard Medical School	1887 - 1955	59
1926	Svedberg, Theodor	no supervisor	1907	Uppsala	1884 - 1971	42
1952	Synge, Richard Laurence Millington	Norman W. Pirie	1941	Cambridge	1914 - 1994	38
2002	<b>Tanaka, Koichi</b>		1983	Tohoku (B.Eng.)	1959 -	43
1983	Taube, Henry	William C. Bray	1940	UC Berkeley	1915 - 2005	68
1948	Tiselius, Arne	Theodor Svedberg	1930	Uppsala	1902 - 1971	46
1957	Todd, Lord Alexander Robertus	Walther Borsche	1931	Frankfurt	1907 - 1997	50
2008	Tsien, Roger Y.		1977	Cambridge	1952 -	56
1934	Urey, Harold	Gilbert N. Lewis	1923	UC Berkeley	1893 - 1981	41
1901	van't Hoff, Jacobus	Eduard Mulder	1874	Utrecht	1852 - 1911	49
1955	Vigneaud, Vincent Du	John R. Murlin	1927	Rochester	1901 - 1978	54
1945	Virtanen, Artturi	Ossian Aschan	1919	Helsinki	1895 - 1973	50
1997	<b>Walker, John E.</b>	Sir Edward Penley Abraham	1969	Oxford	1941 -	56
1910	Wallach, Otto	Friedrich Wohler	1869	Goettingen	1847 - 1931	63
1913	Werner, Alfred	Arthur Hantzsch	1890	ETH	1866 - 1919	47
1927	Wieland, Heinrich	Johannes Thiele	1901	Munich	1877 - 1957	50
1973	Wilkinson, Sir Geoffrey	Henry Vincent Aird Briscoe	1941	Imperial College, U London	1921 - 1996	52
1915	Willstätter, Richard Martin	Alfred Einhorn	1894	Munich	1872 - 1942	43
1928	Windaus, Adolf	Heinrich Kiliani	1899	Freiburg	1876 - 1959	52
1979	Wittig, Georg	Karl von Auwers	1923	Marburg	1897 - 1987	82
1965	Woodward, Robert Burns	Avery Ashdown; James F. Norris	1937	MIT	1917 - 1979	48
2002	<b>Wuethrich, Kurt</b>	Silvio Arthur Fallab	1964	Basel	1938 -	64
2009	<b>Yonath, Ada E.</b>	Wolfie Traub	1968	Weizmann Inst.	1939 -	70

1999	<b>Zewail, Ahmed</b>	Robin Main Hochstrasser	1974	U Pennsylvania	1946 -	53
1963	Ziegler, Karl	Karl von Auwers	1920	Marburg	1898 - 1973	65
1925	Zsigmondy, Richard	Wilhelm von Miller	1889	Erlangen	1865 - 1929	60

Note: Bolded names are those that are still alive at the time of this writing.

<b>TOP 5 UNIVERSITY RANKING WHERE NOBEL LAUREATES WERE EDUCATED</b>		
<b>Number of Laureates</b>	<b>University</b>	<b>Country</b>
15	Cambridge	U.K.
10	UC Berkeley	U.S.
8	Harvard	U.S.
6	Munich	Germany
4	Berlin	Germany
4	Gottingen	Germany
4	Marburg	Germany
3	MIT	U.S.
3	Uppsala	Sweden

<b>NATIONALITY DEMOGRAPHICS</b>	<b>NUMBER OF PRIZES</b>
American	60
American born	46
German	28
British	26
British born	24
French	8
Canadian	7
Canadian born	4
Japanese	5
Austrian	4
Norwegian	3
Russian	3
Swedish	3
Dutch	3

Croatian	2
Hungarian	2
Polish	2
Swiss	2
Israeli	3
South African	1
Slovenian	1
Scottish	1
New Zealander	1
Mexican	1
Latvian	1
Korean	1
Italian	1
Finnish	1
Egyptian	1
Danish	1
Czech	1
Australian	1
Taiwanese	1

#### CANADIAN-BORN CHEMISTRY NOBEL LAUREATES

PRIZE YEAR	NOBEL LAUREATE	BIRTHPLACE	DOCTORAL EDUCATION	
1949	WILLIAM FRANCIS GIAUQUE	b. Niagara Falls, ON	Ph.D. 1922, California	went to UC Berkeley, USA
1983	HENRY TAUBE	b. Neudorf, SK	Ph.D. 1940, UC Berkeley	went to Cornell, Chicago, Stanford, USA
1989	SIDNEY ALTMAN	b. Montreal, PQ	Ph.D. 1967, Colorado	went to Yale
1992	RUDOLPH A. MARCUS	b. Montreal, PQ	Ph.D. 1946, McGill	went to Polytech. Inst.

				Brooklyn, Illinois, Cal Tech, USA
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**CHEMISTRY NOBEL LAUREATES: CANADIAN IMPORTS**

<b>PRIZE YEAR</b>	<b>NOBEL LAUREATE</b>	<b>BIRTHPLACE</b>	<b>DOCTORAL EDUCATION</b>
1971	GERHARD HERZBERG	b. Hamburg, Germany	Ph.D. 1928, TU Darmstadt
1986	JOHN CHARLES POLANYI	b. Berlin, Germany	Ph.D. 1952, Manchester
1993	MICHAEL SMITH	b. Blackpool, England	Ph.D. 1956, Manchester

<b>Age Range to Win Prize (yrs)</b>	<b>Number of Laureates</b>
30 - 34	0
35 - 39	7
40 - 44	16
45 - 49	19
50 - 54	30
55 - 59	24
60 - 64	25
65 - 69	16
70 - 74	11
75 - 79	4
80 - 84	4
85 - 89	1

