

Year	Citation	Medalist(s)
1903	Studies in Denitrification	Edward B. Voorhees
1904	No award	No award
1905	Atomic Weight of Beryllium	Charles L. Parsons
1906	Researches on Quinazolines	Marston T. Bogert
1907	Estimation of Arsenic	Howard B. Bishop
1908	Corrosion of Iron and Steel	William H. Walker
1909	Atomic Weight of Chlorine	William A. Noyes
1909	Atomic Weight of Chlorine	H. C. P. Weber
1910	Synthesis, Constitution, and Industrial Application of Bakelite and Soluble and Fusible Resinous Condensation Products of Formaldehyde and Phenol	Leo. H. Baekeland
1911	Partial Vapor Pressure of Binary Mixtures	M. A. Rosanof
1911	Partial Vapor Pressure of Binary Mixtures	C. W. Easley
1912	Rare Earth Compounds	Charles James
1913	No award	No award
1914	Triphenyl Methyl	Moses Gomberg
1915	Chemical Reactions at Low Pressures	Irving Langmuir, Nobel Prize 1932
1916	Acetyl Derivatives of the Sugars	Claude S. Hudson
1917		no award
1918	Researches on Pyrimidines	Treat B. Johnson
1919	No award	No award
1920	Arrangements of Electrons in Atoms and Molecules	Irving Langmuir, Nobel Prize 1932
1921	Third Law of Thermodynamics	Gilbert N. Lewis
1922	No award	no award
1923	Use of Anti-Knock Compounds in Motor Fuels	Thomas Midgely, Jr.
1924	Properties of Nonaqueous Solutions	Charles A. Kraus
1925	Alcohols, Aldehydes and Acids of the Ammonia System	E.C. Franklin
1926	Chemical Activation by Alpha Particles	Samuel C. Lind
1927	Acids of Chaulmoogra Oil and Related Compounds	Roger Adams, National Medal of Science 1964
1928	Catalysis as an Inspiration of Fundamental Research	Hugh S. Taylor
1929	Contributions to the Chemistry of Carbohydrates	William L. Evans
1930	Chemistry of Photography	Samuel E. Sheppard
1931	Colloid Chemistry as Applied to Leather and Sanitation	John A. Wilson
1932	Chemistry of Chlorophyll	James B. Conant
1933	No award	no award
1934	Chemistry of Vitamins	Henry C. Sherman

1935	Basic Work on Synthesis from Unsaturated Hydrocarbons	Julius A. Nieuwland
1936	Hydrogen Ion Concentration and Oxidation Reduction Equilibria	William M. Clark
1937	Metallo-organic Compounds, Especially those of Mercury. In the Field of Aliphatic Chemistry. Particularly in Molecular Rearrangements and in the Configurational Relationships of the Simpler Optically Active Organic Compounds	Frank C. Whitmore
1938		P. A. Levene
1939	Solubility of Nonelectrolytes	Joel H. Hildebrand
1940	Contributions in the Field of Enzyme Chemistry	John M. Nelson
1941	Fundamental Inquiry in the Nature of the Chemical Bond	Linus Pauling, Nobel Prize 1954 (Chemistry), Nobel Prize 1962 (Peace)
1942	Contributions to Electrochemistry	Duncan A. MacInnes
1943	Investigations in Inorganic and Physical Chemistry. Leadership in Defense Against Poison Gas and as a Teacher Administrator and Editor	Arthur B. Lamb
1944	Organic Chemical Contributions to the Study of Polymers	Carl S. Marvel, National Medal of Science 1986
1945	Researches on the Structure of Biotin and other Contributions to Biochemistry	Vincent du Vigneaud, Nobel Prize 1955
1946	Contributions to the Chemistry of the Viruses	Wendell M. Stanley, Nobel Prize 1946
1947	Contributions in the Field of Reaction Kinetics, Spectroscopy of Polyatomic Molecules and Heat Effects in Organic Reactions	George B. Kistiakowski
1948	Co-discoverer of Pu, Am and Cm, Preeminent in the Fields of Nuclear Fission, Plutonium Production, and the Transuranium Elements	Glenn T. Seaborg, National Medal of Science 1991, Nobel Prize 1951
1949	World Leadership in Analytical Chemistry and Contributions to the Theories of Interfacial Phenomena and Electrode Reactions	I. M. Kolthoff
1950	Fundamental Contributions to the Fields of Insulin Chemistry, Steroid Hormones, Antibiotics and Alkaloids, and the First Isolation in Crystalline Form of Penicillin-G and Streptomycin	Oskar Wintersteiner
1951	Contributions to the Theory of Rate Processes in Chemistry, Biology, Metallurgy and Physics	Henry Eyring, National Medal of Science 1966
1952	Pioneer Work in the Chemistry and Production of Pure Rare Earth and Actinide Elements	Frank H. Spedding
1953	Pioneer Work on Stable Enols, Ene-diols, Unusual Grignard Reactions and Nucleophilic Substitutions	Reynold C. Fuson
1954	Application of Dielectric Measurements in Elucidation of Molecular Structure and Properties of Liquids and Crystals	Charles P. Smyth
1955	Pioneer Studies on the Thermodynamics of Electrolytes, Especially the Entropies of Ions in Aqueous Solutions	Wendell M. Latimer
1956	Brilliant Original Concepts and Their Use in Elucidation of Structure and Synthesis of Complex Natural Products	Robert Burns Woodward, National Medal of Science 1964, Nobel Prize 1965

1957	Giving Impetus, Direction and Highly Original Concepts to Physical Organic Chemistry	Louis P. Hammett
1958	Elucidating the Mechanism of the Photosynthetic Fixation of Carbon Dioxide	Melvin Calvin, National Medal of Science 1989, Nobel Prize 1961
1959	Important Original Contributions to Boron Chemistry, the Concept of Steric Strains and Aromatic Substitution	Herbert C. Brown, National Medal of Science, Nobel Prize 1979
1960	Pioneer Contributions to Pure and Applied Polymer Science	Herman F. Mark, National Medal of Science 1979
1961	Basic Contributions to Theory in the Area Where Chemistry Merges with Physics	Peter J. W. Debye, National Medal of Science 1965, Nobel Prize 1936
1962	Creative Contributions to Theoretical and Experimental Research on the Physical Chemistry of Macromolecules	Paul J. Flory, National Medal of Science 1974, Nobel Prize 1974
1963	Superlative Lecturer, Teacher and Writer on Organic Chemistry Pioneering Investigator of Polynuclear Compounds	Louis F. Fieser
1964	For Unselfish Devotion to the Profession of Chemistry Particularly in the Dissemination of Scientific Information - for Long-continued and Productive Research in Organic Chemistry - for Outstanding Service in the Education of	Arthur C. Cope
1965	For Long-continued and Productive Research in Organic and Biochemistry	Herbert E. Carter
1966	Outstanding Contributions to the Area of Thermodynamics through Research Writing Organization	Frederick D. Rossini, National Medal of Science 1976
1967	For His Achievements in Chemistry Particularly in Vitamins and Antibiotics of Significance in Medicine	Karl Folkers, National Medal of Science 1990
1968	Total Synthesis of Triterpenoids and Steroids: Stereospecific Cyclization Reaction	William S. Johnson, National Medal of Science 1987
1969	For His Studies on Protein Synthesis in Cell Free Systems Which Have Resulted in Deciphering the Genetic Code	Marshall Nirenberg, Nobel Prize 1968 (Physiology & Medicine)
1970	For Imaginative Application of Physical Methods of Elucidation of the Chemical Mechanism of Action of Enzyme Systems Which Provide Living Organisms with the Free Energy Required for Life and Growth	Britton Chance, National Medal of Science 1974
1971	For Outstanding Creative Contribution in the Discipline of Inorganic Chemistry Especially Kinetics and the Mechanism of Reactions	Henry Taube, National Medal of Science 1976, Nobel Prize 1983
1972	For Pioneering Studies of Organic Reaction Mechanism and Applications of Nuclear Magnetic Resonance and Molecular Orbital Theory in Organic	John D. Roberts, National Medal of Science 1990
1973	For Development of the Solid Phase Method of Synthesis of Peptides and Proteins and the Stimulation This Method Gave to the Study of Polynucleotides	R. Bruce Merrifield, Nobel Prize 1984
1974	For Original Theoretical and Experimental Investigations of Protein Structures and Interactions Including the Role of Solvents in Protein Conformations	Harold A. Scheraga
1975	For His Contributions in the Field of Inorganic Chemistry Which Have Been Characterized by Insight Imagination and Extraordinary Breadth. In Particular for Basic and Original Work on Metal Carbonyl Metal Atom Cluster and Fluxional	F. Albert Cotton, National Medal of Science 1982
1976	For Outstanding Contributions to the Development of Physical Organic Chemistry	Paul D. Bartlett, National Medal of Science 1968
1977	For Contributions to Organic Chemistry. In Particular in the Technology Art and Logic of Organic Synthesis	Elias J. Corey, National Medal of Science 1988, Nobel Prize 1990

1978	For Research into the Structure of High Polymers and Insights into the Relationship between Structures and Properties	Frank Alden Bovey, II
1979	For Unlocking the Chemical Secrets of the Hormones of the Anterior Pituitary Gland Particularly ACTH, GH, IGF and beta Endorphin	Choh Hao Li
1980	For Outstanding Contributions to the Methodology and Art of Synthetic Organic Chemistry and for Landmarks in Natural Product Synthesis	Gilbert Stork, National Medal of Science 1982
1981	For His Outstanding Contributions in Orbital Symmetry and Electronic Structure of Transition States and Intermediates	Roald Hoffmann, National Medal of Science 1983, Nobel Prize 1981
1982	For Outstanding Contributions Both to Physical-organic and to Bio-organic Chemistry Which Have Clarified Rationalized and Illuminated These Fields	Frank H. Westheimer, National Medal of Science 1986
1983	For His Synthetic Work Including the First Compound of a Noble Gas	Neil Bartlett
1984	For His Outstanding Contributions to Mass Spectrometry and Computer-Assisted Techniques in Analytical Chemistry	Fred W. McLafferty
1985	For His Penetrating Insights into the Mechanisms of Organic Reactions	Jerome A. Berson
1986	For His Outstanding Contributions in the Field of Theoretical Organic Chemistry	Michael J. S. Dewar
1987	For Pioneering Contributions to the Theory and Practice of Stereochemistry	Kurt Mislow
1988	For His Outstanding Contributions in the Field of Medicinal Chemistry	Ralph F. Hirschmann, National Medal of Science 2000
1989	For His Contributions to a Unique Combination of Physical Organic Bioorganic and Biomimetic Chemistry	Ronald Breslow, National Medal of Science 1991
1990	For Outstanding Contributions in the Field of Chemical Physics as Applied to Structures and Reactions of Practical Importance	John D. Baldeschwieler, National Medal of Science 2000
1991	For Profound Theoretical Insights and Outstanding Innovations in Separation Science	J. Calvin Giddings
1992	For His Exceptional Structural Studies of Bioactive Molecules Using Novel and Ingenious Microscale Methods	Koji Nakanishi
1993	For Development of Cluster Chemistry; Notably Buckminsterfullerene	Richard E. Smalley, Nobel Prize 1996
1994	For Contributions to Bioorganic Chemistry: In Particular in the Methods and Chemical Principles for Recognition of Nucleic Acids by Synthetic Molecules	Peter B. Dervan, National Medal of Science 2006
1995	For Creative Contributions in Bioinorganic and Organometallic Chemistry Characterized by Extraordinary Breadth and Depth That Have Characterized by Extraordinary Breadth and Depth That Have Profoundly Stimulated Other	Stephen J. Lippard, National Medal of Science 2004
1996	For Creative Work in the Art and Science of Chemical Synthesis and Molecular Design	K. C. Nicolaou
1997	For Her Contributions to Bioinorganic Chemistry: In Particular in the Application of Transition Metal Complexes to Probe DNA Recognition and Reactions	Jacqueline K. Barton, National Medal of Science 2010
1998	For Pioneering the Development of the Field of Femtochemistry	Ahmed H. Zewail, Nobel Prize 1999
1999	For his contributions to bioorganic chemistry: in particular for creative	Samuel J. Danishefsky

2000	contributions at the interface of organic synthesis and biology For Outstanding Contributions in the Use of Novel Methodologies for Synthetic Chemistry	Barry M. Trost
2001	For Outstanding Contributions to Understanding Signal Transduction Pathways by Merging Synthetic Organic Chemistry and Molecular Cell Biology Approaches	Stuart L. Schreiber
2002	For Outstanding Contributions to the Field of Conducting Polymers	Alan G. MacDiarmid, Nobel Prize 2000
2003	For The Currents of Life: Electron Flow Through Iron and Copper Proteins	Harry Gray, National Medal of Science 1986
2004	For the Invention and Development of the Scanning Electrochemical Microscope (SECM) which has Allowed High Resolution Chemical Imaging of Surfaces and Reactions on the Nanometer Scale	Allen J. Bard, National Medal of Science 2011
2005	For Pioneering Studies of Chemical Reactions on the Molecular Level	Richard N. Zare, National Medal of Science 1983
2006	For Click Chemistry, A New Strategy for Chemical Discovery	K. Barry Sharpless, Nobel Prize 2001 (Chemistry), Nobel Prize 2022 (Chemistry)
2007	For Pioneering Research on the Photochemistry of Organic Molecules and Supramolecular Systems	Nicholas J. Turro
2008	For Founding and Establishing the Field of Structural DNA Nanotechnology	Nadrian C. Seeman
2009	For New Methods at the Interface of Chemistry and Biology	Carolyn R. Bertozzi, Nobel Prize 2022
2010	Pioneering Research in Catalysis and Soft Matter Electronics	Tobin J. Marks, National Medal of Science 2005
2011	Advances in the Science of Molecular Recognition and Encapsulation	Julius Rebek, Jr.
2012	Advances in Fourier Transform Ion Cyclotron Resonance Mass Spectrometry	Alan G. Marshall
2013	Contributions to Inorganic Photochemistry	Richard Eisenberg
2014	For outstanding Contributions to Synthetic Organic Chemistry	Amos B. Smith, III
2015	For outstanding Contributions to the Elucidation of Novel Highly Selective Nanocatalysis	Gabor A. Somorjai, National Medal of Science 2001
2016	For Landmark Contributions to Organometallic Chemistry, Ligand Design and Catalysis	Stephen L. Buchwald
2017	For Pioneering Practical Applications of Nanochemistry	Chad A. Mirkin
2018	For Pioneering 3D Nanoarchitectures for Energy-relevant Materials	Debra R. Rolison
2019	For Contributions to Interfacial Environmental Chemistry	Vicki H. Grassian
2020	For the development of Atom Transfer Radical Polymerization	Krzysztof Matyjaszewski
2021	No Award	No Award
2022	For pioneering contributions to marine bioinorganic chemistry	Alison Butler
2023	For pioneering work in organometallic reaction mechanisms	Karen I. Goldberg
2024	For groundbreaking quantum insights in sustainable catalysis	Emily A. Carter