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## October

## October SCIENTIST

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- 1** **Yang, Chen-Ning Franklin** (1 October 1922), Chinese-American scientist. He and T.-D. Lee were the co-winners of the 1957 Nobel Prize in physics for their fundamental study concerning the law of parity, from which important discoveries about elementary particles flow.
- Ciechanover, Aaron** (1 October 1947), American biologist. He is known for the discovery of controlled protein degradation by ubiquitin (a protein formed from several amino acids) and was the co-winner with I. Rose and A. Hershko of the Nobel Prize in chemistry in 2004.
- Geim, Andre** (1 October 1958), Dutch scientist of Russian origin. He is known for the discovery of a new crystalline form of carbon in graphite, graphene (in 2004), with specific physical and electrophysical properties. For this discovery, he and K. Novoselov were co-winners of the Nobel Prize in physics in 2010.
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- 2** **Hjelm, Peter Jacob** (2 October 1746–7 October 1813), Swedish mineralogist and chemist. To him we owe the discovery of molybdenum in 1781.
- Ramsay, William** (2 October 1852–13 July 1916), British scientist. He is known for the discovery of argon. He also obtained liquid air, neon, krypton and xenon. He was able to prove that helium was constantly produced by radioactive natural products. He was the winner of the Nobel Prize in chemistry in 1904.
- Todd, Alexander Robert** (2 October 1907–10 January 1997), British scientist. He is known for the synthesis of diphosphate compounds and ATP, which are of paramount importance in the management of energy by the human body. For his fundamental research work on nucleotides and nucleotide co-enzymes, he was awarded the Nobel Prize in chemistry in 1957.
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- 3** **Pedersen, Charles John** (3 October 1904–26 October 1989), American scientist. He is known for the synthesis of the crown ether. He, J.-M. Lehn, and D.J. Cram were the co-winners of the Nobel Prize in chemistry in 1987 for their synthesis and use of molecules exerting highly selective interactions due to their structures.
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- 4** **Fukui, Ken'ichi** (4 October 1918–9 January 1998), Japanese scientist. He is known for his work on the frontier orbitals in chemical reactions. He and R. Hoffmann were joint winners of the 1981 Nobel Prize in chemistry for their concepts and theories regarding the routes of chemical reactions.
- Nishijima, Kazuhiko** (4 October 1926–15 February 2009), Japanese scientist. He is known for his fundamental contributions in the field of particle physics.
- Wüthrich, Kurt** (4 October 1938), Swiss scientist. He is known for the development of nuclear magnetic resonance spectroscopy for determining the three-dimensional structures of biological macromolecules in solution. He was awarded the Nobel Prize in chemistry in 2002.
- Braunstein, Pierre** (4 October 1947), French scientist. He is known for his fundamental contribution to applied molecular chemistry, the creation of new chemical bonds, elaboration of concepts rationalizing structure–reactivity relationships, applications in homogeneous catalysis, the creation of nanomaterials from molecular precursors, and applications in heterogeneous catalysis (carbonylation of organic nitro derivatives to isocyanates).
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- 5** **Coster, Dirk** (5 October 1889–12 February 1950), Dutch scientist. He is known for the discovery of the chemical element hafnium (Hf) in 1923.
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- 6** **Walton, Ernest Thomas Sinton** (6 October 1903–25 June 1995), Irish scientist. He and J. Cockcroft were the co-winners of the 1951 Nobel Prize in physics for their research on the transmutation of atomic nuclei by artificially accelerated particles.
- Giacconi, Riccardo** (6 October 1931), Italian scientist. He was the co-winner of the Nobel Prize in physics in 2002 for his work in the field of astrophysics, which resulted in the discovery of cosmic X-rays. Giacconi, the asteroid, is named in his honor.
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- 7** **Bohr, Niels Henrik David** (7 October 1885–18 November 1962), Danish scientist. He is known as the promoter of quantum theory. A tireless researcher for the peaceful use of atomic energy, he organized the first Atoms for Peace Conference in Geneva in 1955. The synthetic element bohrium was named in his honor. He was the winner of the Nobel Prize in physics in 1922.
- Kroto, Harold Walter** (7 October 1939), British scientist. He is known for the discovery of fullerenes, which earned him the Nobel Prize in chemistry in 1996.
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- 8** **Le Chatelier, Henry Louis** (8 October 1850–17 September 1936), French scientist. To him we owe the invention of the optical pyrometer used for measuring the high temperatures of light radiated by a hot object. He developed the law of chemical equilibrium, the principle of Le Chatelier.
- Skou, Jens Christian** (8 October 1918), Danish physician and biophysicist. He is known for the discovery of an enzyme ion transporter that earned him the Nobel Prize in chemistry in 1997.
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- 9** **Fischer, Hermann Emil** (9 October 1852–15 July 1919), German scientist. He is known for his research on the synthesis of carbohydrates and purines, for which he was awarded the Nobel Prize in chemistry in 1902.
- von Laue, Max** (9 October 1879–24 April 1960), German scientist. He was the winner of the Nobel Prize in physics in 1914 for the discovery of X-ray diffraction by crystals. He realized structural studies in crystals (Laue method).
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- 10** **Cavendish, Henry** (10 October 1731–24 February 1810), British scientist. He is known for the discovery of argon gas and hydrogen. He showed that hydrogen, when heated, produces water. He was the first to measure the gravitational constant of Newton and thereby determine the mass of the Earth. He determined the ability of a driver as well as the relationship between the quantity of stored electricity and the degree of electrification of the conductor.
- Frank, Iliá Mikhailovitch** (10 October 1908–22 June 1990), Russian scientist. He, P. Cherenkov and I. Tamm were the co-winners of the Nobel Prize in physics in 1958 for their research on the discovery and analysis of the Cherenkov effect.
- Chauvin, Yves** (10 October 1930–28 January 2015), French scientist. He is known for his fundamental research on the catalysis of the metathesis reaction of olefins. His research, fundamental or applied, constitutes a major evolution of our society in the environmental and economic context. He, R. Grubbs, and R. Schrock were the co-winners of the Nobel Prize in chemistry in 2005.
- Ertl, Gerhard** (10 October 1936), German scientist. He was awarded the Nobel Prize in chemistry in 2007 for his research on chemical mechanisms on solid surfaces. Ertl is one indisputable pillar of nanoscience and nanotechnology.
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- 11** **Suvisa, Fausto de Elhúyar** (11 October 1755–6 February 1833), Spanish scientist. He is particularly known for the discovery (in collaboration) of tungsten, which means “heavy stone” in Swedish.
- Bergius, Friedrich Karl Rudolf** (11 October 1884–30 March 1949), German scientist. He was responsible for the development of specific methods to process coal and heavy oil with hydrogen to obtain gasoline. He was the co-winner with C. Bosch of the Nobel Prize in chemistry in 1931 for their contributions to the invention and development of chemical high-pressure methods.
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- 12** **Sobrero, Ascanio** (12 October 1812–26 December 1888), Italian scientist. He is known for the preparation of nitroglycerin in 1847.
- Harden, Arthur** (12 October 1865–17 June 1940), English scientist. He, along with H.K.A.S. von Euler-Chelpin, were the co-winners of the Nobel Prize in chemistry in 1929 for their research on the fermentation of sugar and fermentation enzymes.
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- 13** **Rateau, Auguste Camille Edmond** (13 October 1863–13 January 1930), French engineer. He invented the turbocharger in 1916 for aircraft engines and was responsible for the first supercharged engine aircraft.
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- 14** **Raney, Murray** (14 October 1885–3 March 1966), American scientist. He is particularly known for the development of nickel catalysts, known as “Raney nickel catalysts” used for hydrogenation reactions.
- Davis Jr., Raymond** (14 October 1914–31 May 2006), American scientist. He is known for his work on the discovery of cosmic neutrinos. He was the co-winner of the Nobel Prize in physics in 2002 for his contributions in the field of astrophysics.
- Balasanian, Ion** (14 October 1942), Romanian scientist. He is known for his fundamental studies in the field of materials and catalytic reactions. He studied the relationship between the structures of solids and their catalytic properties. He is known as a professor and leading educator in the field of chemistry.
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- 15** **Torricelli, Evangelista** (15 October 1608–25 October 1647), Italian physicist and mathematician. He designed the mercury barometer.
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- 16** **Proca, Alexandru** (16 October 1897–13 December 1955), Romanian scientist. He suggested the existence of mesons and elaborated the meson theory of nuclear forces. There are established equations that bear his name, the Proca equations.
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- 17** **October 17, 1973:** OPEC is at odds with Western countries over their support of Israel resulting in the first oil shock.
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- 18** **Jordan, Pascual** (18 October 1902–31 July 1980), German scientist. With Heisenberg and Born, he is considered the founder of quantum mechanics. He had important contributions in quantum electrodynamics, biophysics, and the theory of gravitation.
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- 19** **Perey, Marguerite Catherine** (19 October 1909–13 May 1975), French chemist and physicist. She is known for the discovery of the chemical element francium in 1939.
- Chandrasekhar, Subrahmanyan** (19 October 1910–21 August 1995), American astrophysicist and mathematician of Indian origin. With his theoretical research studies of the physical processes important to the structure and evolution of stars, he was awarded the Nobel Prize in physics in 1983.
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- 20** **Chadwick, James** (20 October 1891–24 July 1974), British scientist. He was the winner of the Nobel Prize in physics in 1935 for his discovery of the neutron.
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- 21** **Nobel, Alfred Bernhard** (21 October 1833–10 December 1896), Swedish chemist, industrialist and manufacturer of weapons. He began manufacturing nitroglycerin in 1859 and invented dynamite in 1866, which was used at the beginning in the mining industry. In his honor, a chemical element is named nobelium. His fortune was devoted to the creation of the Nobel Prize.
- Ketterle, Wolfgang** (21 October 1957), German scientist. Co-winner with E. Cornell and C. Wieman of the Nobel Prize in physics in 2001. They were rewarded for their achievement of the Bose–Einstein condensation of alkali atoms in dilute gases and for their studies, which were the first of this type, on the properties of condensates.
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- 22** **Davisson, Clinton Joseph** (22 October 1881–1 February 1958), American scientist. He was the co-winner with G.P. Thomson of the Nobel Prize in physics in 1937 for the discovery of the diffraction of electrons by crystals.
- Spedding, Frank Harold** (22 October 1902–15 December 1984), American scientist. He is known for the development of an ion exchange process for the separation of rare-earth elements in the 1940s.
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- 23** **Lewis, Gilbert Newton** (23 October 1875–23 March 1946), American scientist. He developed the theory of covalent bonds, the electron theory of acids and bases, proposed the term “photon” and suggested the notion of transience. He studied the relationship between the structures of organic compounds and their magnetic properties. Using the electrolytic method, he managed to prepare heavy water.
- Bloch, Felix** (23 October 1905–10 September 1983), Swiss scientist. He is known for developing a method for determining the magnetic fields of atomic nuclei of liquids and solids and for measuring the magnetic moment of the neutron. This work enabled the development of a subtle chemical analysis method called nuclear magnetic resonance (NMR) and nuclear induction, which are the basis of magnetic resonance imaging (MRI). He was the co-winner with E. M. Purcell of the Nobel Prize in physics in 1952.
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- 24** **Weber, Wilhelm Eduard** (24 October 1804–23 June 1891), German physicist. He is known for the discovery (in collaboration) of the first electromagnetic telegraph. In 1846, he introduced logical units for the electricity system. These units were formally adopted at an international congress in Paris in 1881. The magnetic unit Weber was named in his honor.
- De Gennes, Pierre-Gilles** (24 October 1932–18 May 2007), French scientist. He was the winner of the Nobel Prize in physics in 1991 for his research studies on liquid crystals and polymers.
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- 25** **Morgan, Leon Owen** (25 October 1919–29 July 2002), American scientist. His research activities were mainly concerned with the fields of paramagnetic resonance, nuclear reactions and electronics as well as rapid reaction mechanisms. He is known for his co-discovery of the chemical element Americium (Am).
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- 26** **Lowry, Thomas Martin** (26 October 1874–2 November 1936), English scientist. At the same time, but independently of Brønsted, he established a theory of acids and bases that the acids are proton donors and bases are proton acceptors.
- Livage, Jacques** (26 October 1938), French scientist. He is known for his pioneering studies in the field of green chemistry. He developed sol–gel processes for the preparation of innovative materials and the substitution of conventional methods, which were often harmful to the environment.
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- 27** **Lennard-Jones, John Edward** (27 October 1894–1 November 1954), English scientist. He studied the nature of chemical bonds, interatomic forces, and in 1928, in collaboration with Hund and Mulliken, developed the molecular orbital method. He also made important contributions to the study of surface chemistry.
- Wichterle, Otto** (27 October 1913–18 August 1998), Czech scientist. He is known in particular for the invention soft lenses and sylon, a synthetic fiber that competes with nylon.
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- 28** **Syngé, Richard Laurence Millington** (28 October 1914–18 August 1994), English scientist. He is known for the discovery of distribution chromatography and paper chromatography. He determined the structures of antibiotics (gramicidin-S). He was the co-winner with A.J.P. Martin of the Nobel Prize in chemistry in 1952 for the discovery of partition chromatography.
- Gates III, William Henry–Gates, Bill** (28 October 1955), American computer inventor. He was the co-founder (with P. Allen) of the Microsoft Corporation at the age of 20.
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- 29** **Djerassi, Carl** (29 October 1923–30 January 2015), Austrian scientist. He is known for the invention (in collaboration) of norethindrone, the synthetic progestogen that has led to the invention of the contraceptive pill.
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- 30** **Kopp, Hermann Franz Moritz** (30 October 1817–20 February 1892), German scientist. He is known as the first researcher who conducted precise measurements of the boiling points of organic substances. He measured specific gravities and specific heats as well as demonstrating how similar compounds differ by small graduations when the length of the chain of carbon atoms connected is increased.
- Hänsch, Theodor Wolfgang** (30 October 1941), German scientist. He was the co-winner of the Nobel Prize in physics in 2005 due to his work that enabled the development of precision laser spectroscopy.
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- 31** **Swan, Joseph Wilson** (31 October 1828–27 May 1914), British scientist. He invented the first incandescent bulb. His house was the first in the world illuminated with a light bulb by hydro-electricity. In 1871, he created the dry plate process of photography, and he patented bromide paper.
- Von Baeyer, Adolf** (31 October 1835–20 August 1917), German scientist. He synthesized indigo dye. He was the first to obtain synthetic fluorescein, a fluorophore pigment that is frequently called pyoverdine when naturally synthesized by microorganisms. He also discovered barbituric acid. He received the Nobel Prize in 1905 for his work in synthetic organic chemistry.
- Pople, John Anthony** (31 October 1925–15 March 2004), British scientist. He is known for the development of computer calculation methods in quantum chemistry and was awarded the Nobel Prize in chemistry in 1998.
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