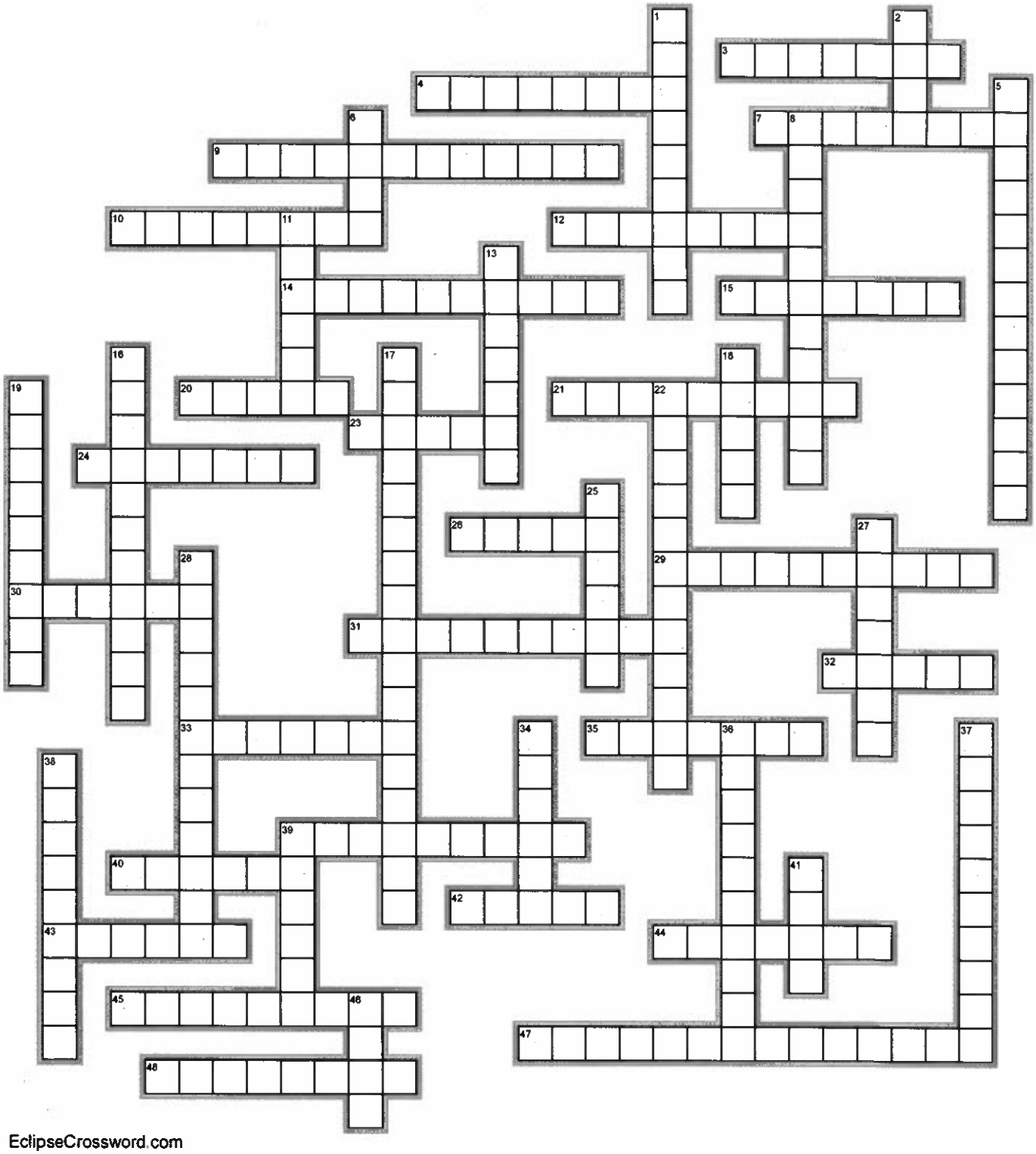
Nobel Laureates of the 1970's

Dr. Thomas Manning



EclipseCrossword.com

Nobel Laureates of the 1970's

Dr. Thomas Manning

Across

3. Dr. Walter Gilbert was one of the 1980 Nobel Prize winners for chemistry. From his Biographical (on Nobelprize.org) "I showed that a single messenger molecule can service many ribosomes at once and that the growing polypeptide chain always remains attached to a transfer RNA molecule. This last discovery illuminated the mechanism of _____ synthesis:"

4. Dr. Peter _____won the 1978 Nobel Prize in chemistry for his work with energy transfer in biological (i.e. plants/animals) systems.

7. Some of the biggest hit songs of the 1970's were Bohemian Rhapsody by the group Queen; You're The One That I Want by John _____ & Olivia Newton-John (from Grease); What's Going On, by Marvin Gaye; and My Girl, by the group The Temptations.

9. The Nobel Prize in Chemistry in 1972 was awarded to three scientists including Dr. Anfinsen (worked with _____).

10. Some DNA viruses are herpesviruses, smallpox, adenoviruses, and papillomaviruses. _____ was eradicated in the 1970's by a vaccine, but is now of concern because of bioterrorism.

12. _____, is the chemical compound with the empirical formula B2H6. It is a colorless, toxic and has a sweet odor.

14. The 1979 Nobel Prize in Medicine was awarded to Dr. Cormack and Dr. Hounsfield for the scientific and technical development of computer assisted _____ or CAT scans.

15. Thermodynamics or thermochemistry is the study of energy movement in a chemical system. Common parameters measured are Gibbs Free energy (G), _____(S) and enthalpy (H).

20. Because of the Watergate scandal, President Richard _____ resigned the Presidency of the United States in 1974. He was replaced by Gerald Ford as President. President Ford pardoned former President _____.

21. RNA viruses include orthomyxoviruses, Ebola, ____ C Virus (HCV), Ebola, SARS, polio, influenza, and measles.

23. Boranes are BxHy compounds (boron hydrides). The compounds contain the element _____ bound to hydrogen.

24. There was an outbreak of Legionnaires disease in 1976. The bacterium Legionella pneumophila causes the disease. The bacterial infection is transmitted via air, and is _____.

26. CAT or CT scans were introduced in the 1970's. Computerized _____ tomography, uses x-rays in more than one dimension largely for diagnosis applications. Computer technology made the technique possible. X-rays were discovered approximately 75 years earlier.

29. The 1979 Nobel Prize in chemistry was shared by Dr. Herbert Brown and Dr. Georg Wittig. Their work focused on the use of boron (B) and _____ (P) compounds.

30. Cis-plat is a well known cancer drug that has Pt in the center, and two Cl atoms and two ammonia molecules attached. It is a square-planar geometry. It can have cis and trans _____

31. The 1971 Nobel Prize in Physics 1971 was focused on _____ and was awarded to Dr. Dennis Gabor.

32. The _____ 4004, the worlds first microprocessor, hit the market in November 1971. It had a CPU clock rate of 750 kHz and a data width of 4 bits. Address width 12 bits (multiplexed)

33. The 1975 Chemistry Prize was awarded to Dr. Prelog for his successful and groundbreaking research involving the stereochemistry of _____ molecules.

35. The 1980 Nobel Prize in Chemistry was awarded to three scientists, one of which was Dr. Paul Berg. His work focused on _____ acids. Much of the work focused on DNA.

39. Dr. Cornforth was awarded 1/2 of the chemistry Nobel Prize in 1975 for his research in the stereochemistry of enzyme- _____reactions.

40. Passed in 1980, The _____ National Interest Lands Conservation Act allowed the National Parks System to protect forty-seven million acres.

42. Stevie Wonder, the rock group LED ZEPPLIN and _____ John were three of the top musical acts of the 1970's.

43. Dr. _____ won two Nobel Prizes in chemistry. His first was in 1958 for his work with insulin. He was one of three scientists to win the 1980 Nobel Prize in chemistry. This was focused on accurately measuring base sequences of nucleic acids.

44. The _____ War directly involved North and South Vietnam, Laos, and Cambodia. It started in 1955, and ended in 1975 when Saigon fell. President Richard Nixon signed an agreement to withdraw American troops from _____ on January 27th, 1973.

45. _____nucleic acid (DNA) is a blueprint for the genetic instructions needed for life.

47. The 1977 Nobel Prize in Chemistry 1977 went to Dr. Ilya Prigogine "for his contributions to non-equilibrium _____, particularly the theory of dissipative structures" (from Nobel.org)

48. Carbohydrates and proteins fall into classification of macromolecules. The 1974 Nobel Prize in chemistry was awarded to Dr. John Flory for his work with macromolecules or _____..

Nobel Laureates of the 1970's

Dr. Thomas Manning

Down

1. Carbohydrates are an important group of molecules. The group includes sugars, starch, and _____.

2. RNA or ____nucleic acid is one form genetic material for life. One method to classify viruses is DNA or RNA; and ss/single stranded or ds/double stranded.

5. The 1970 Nobel Prize for chemistry was awarded to Dr. Luis Leloir. His research focus on sugar nucleotides and the biosynthesis of _____. At the time of his award he was at Institute for Biochemical Research, located in Buenos Aires, Argentina.

6. Early in the 1970's the C programming language was released, with an improved version of _____ coming out in 1973.

8. In 1972, the United States Congress passed the Insect, Fungacide, and _____ Act. It required that all pesticides sold in the United States had to be registered with the EPA.

11. Dr. Stein and Dr. Moore, 1972 Nobel Prize winners, invented a method to separate the amino acids using column chromatography. The stationary phase was _____ starch.

13. Dr. Lipscomb worked for Dr. Linus _____, while a grad student at Cal Tech. Dr. _____ was awarded two Nobel Prizes, one for Chemistry and one for Peace.

16. _____ a pair of molecules that are mirror images of each other but are not identical. Right and left hands are examples of _____.

17. Dr. Stanford Moore was awarded Nobel Prize in chemistry in 1972 for work with the molecular structures of pancreatic ribonuclease and _____ .

18. _____amplification by stimulated emission of radiation. In LASER, the "L" stands for?

19. ATP or _____ triphosphate is utilized to store and transport energy in plants and animals. Part of this process involves the flow of electrons and hydrogen ions through cellular membranes.

22. The 1974 Physics Nobel Prize was awarded to Dr. Ryle and Dr. Hewish for their work in radiowave _____. Radio telescopes are very large in order to have a signal-to-noise ratio (SNR) that provides meaningful results.

25. The 1970's saw technology innovations such as GPS, Apple computer, digital camera, cell phone, _____disk, and email were all introduced.

27. The 1976 Nobel Prize in chemistry was awarded to Dr. William Lipscomb for his work with _____.

28. Dr. Brown, 1979 Nobel Laureate, developed new _____ compounds, which were created by reacting olefins with diborane. Dr. Brown would joke his initials were H, C, B, which were the elements he worked with in this lab.

34. The _____ Eye, a novel by Toni Morrison, was published in 1970 and was one of the best selling novels of the 70's. She would go on to win the 1993 Nobel Prize in literature for the story of race relations in the United States.

36. In 1973 the _____ Species Act was implemented. It provided protection and funded studies involving endangered wildlife (plants, fish and animals).

37. The 1972 Nobel Prize in Physiology/ Medicine went to Dr. Edelman and Dr. Porter for the discovery _____ at the molecular level.

38. Dr. Paul Flory made critical and difficult measurements using viscosity, light dispersion, ultra centrifugation and _____ to understand macromolecules. .

39. President Jimmy _____ was President of the United States from 1977 to 1981. He would go on to win the 2002 Nobel Peace Prize for his diplomatic efforts while President.

41. Holography is a three dimensional photography application that does not use _____. Often referred to as "lensless photography" (no image focused on film), it utilizes an interference pattern.

46. Dr. Paul _____ was a co-recipient of the 1980 Nobel Prize in chemistry for "for his fundamental studies of the biochemistry of nucleic acids, with particular regard to recombinant-DNA" (from Nobel.org).