# Sir William Lawrence Bragg

ALSO LISTED IN

Physicists

FAMOUS AS

Nobel Laureate in Physics

NATIONALITY

• Briton Famous British Men

BORN ON

• 31 March 1890 AD Famous 31st March Birthdays

ZODIAC SIGN

• Aries Aries Men

BORN IN

North Adelaide, South Australia

DIED ON

01 July 1971 AD

PLACE OF DEATH

· Waldringfield, Ipswich, Suffolk, England

William Henry Bragg

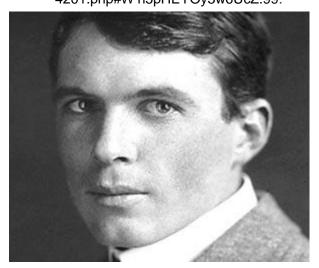
SPOUSE:

**FATHER** 

Alice Hopkinson

- CHILDREN
- Stephen Lawrence, David William, Margaret Alice, Patience Mary
- EDUCATION
- University of Adelaide, Trinity College, Cambridge, St Peter's College, Adelaide, University of Cambridge
  - AWARDS

- Nobel Prize in Physics (1915)
   Barnard Medal (1915)
   Hughes Medal (1931)
  - Read more at http://www.thefamouspeople.com/profiles/sir-william-lawrence-bragg-4201.php#W1i5pHEYOy3w6UcZ.99.



William Lawrence Bragg was an Australian-British physicist, who won the Nobel Prize for Physics at the age of 25 and is the youngest ever Nobel Laureate in Physics so far. He and his father,

William Henry Bragg, shared the 'Nobel Prize for Physics' awarded in 1915 for their work involving x-ray crystallography. Although he was a talented and able individual from an early age, it was assumed that his father had produced the bulk of the work and then generously shared the prize with his son for assisting him. But it was he who had the key idea and the skill to interpret the diffraction patterns to prove it and his father had contributed primarily developing instruments for the experiment. The effect of this slighting on him would shadow him for the rest of his life. He served for British army in both the World Wars and later became a popular lecturer known for his skill in making science exciting for the students. He enjoyed his job as a professor and most reports indicate he found happiness at the Royal Institute for perhaps the first time in his life. The foundation laid by his work and that of others in x-ray crystallography helped scientists to discover the structures of DNA and RNA, thereby creating the field of molecular biology. Read more at <a href="http://www.thefamouspeople.com/profiles/sir-william-lawrence-bragg-4201.php#W1i5pHEYOy3w6UcZ.99">http://www.thefamouspeople.com/profiles/sir-william-lawrence-bragg-4201.php#W1i5pHEYOy3w6UcZ.99</a>

#### Career

- In 1912, he was highly influenced by the ground-breaking work by a German physicist, Max Von Laue, on the diffraction of X- rays by crystals. He discussed it with his father and they started the research on X-ray crystallography, which ultimately resulted in the discovery of Bragg's Law.
- In 1914, he was elected to a Fellowship at Trinity College, but the First World War interrupted his work. From 1915 to 1919, in World War I, he served as technical adviser on sound ranging in the map section of British army headquarters in France.
- After World War I, he served as the Langworthy Professor of Physics at Victoria University of Manchester, from 1919 to 1937, where he built his first research school, for the study of metals and alloys and silicates.
- From 1937 to 1938, he served as the director of the National Physical Laboratory, but he left it to become a Cavendish Professor of Experimental Physics at Cambridge University. He served as the Administrator of Cavendish Laboratory at Cambridge University from 1938 to 1953.
- In April 1953, he accepted the job of Resident Professor at the Royal Institution in London. He worked at the Royal Institution until his retirement in September 1966.

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### **Major Works**

- His most significant accomplishment is the Bragg's Law, which he discovered along with his father. Bragg's Law makes it possible to calculate the positions of the atoms within a crystal from the way an X-ray beam is diffracted by the crystal lattice.
- In 1948, while in Cambridge, he became interested in the structure of proteins. Although he played no direct part in the 1953 discovery of DNA's structure, his X-ray method developed forty years ago was at the heart of this profound insight into the nature of life itself.

## **Awards & Achievements**

• In 1915, he was awarded the 'Nobel Prize for Physics' jointly with his father for their work in the analysis of crystal structure by means of X-rays, an important step in the development of X-ray crystallography. Until now, he is the youngest person ever to receive the Nobel Prize, at an age of 25.

- He was honored as the 'Knight of the British Empire' by King George VI in the 1941 New Year Honours.
- He received the 'Royal Medal' in 1946 and the 'Copley Medal' in 1966, both from the Royal Society.
- Since 1992, the Australian Institute of Physics has awarded the Bragg Gold Medal for Excellence in Physics to commemorate him and his father, for the best doctorate thesis by a student at an Australian university.

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### Trivia

When he was five, he fell from his tricycle and broke his arm. His father used the newly
discovered X-rays to examine his arm. It was the first recorded surgical use of X-rays in
Australia

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