

Speaker: **Andrew Conacher**

Topic: **Sir Humphry Davy – The Davy Lamp**

Andrew's talk on Sir Humphry Davy was most engaging and enjoyable. He firstly spoke on Sir Humphry's background and life and then focused on the Davy Lamp, its context and importance. Andrew indicated that he has an ancestral family connection to Sir Humphry. The following is a brief extract from Andrew's paper.

Sir Humphry was born on 17 December 1778 in Penzance, Cornwall, England and died 29 May 1829 in Geneva, Switzerland aged 50 years. A statue stands in Penzance with him holding his safety lamp. He was both a chemist and inventor and was also a poet and painter. He enthusiastically turned to science and later became a professor at the Royal Institution and presented a series of lectures which were later published.

He worked with a number of scientists of the day (for example, Sir Joseph Banks, who interviewed Davy for his role at the Royal Institution and Michael Faraday who was a co-worker with him) and was a popular public figure. He made a number of scientific discoveries (for example, electrolysis, sodium, potassium, barium) and was knighted in 1812 and awarded a baronetcy in 1819.

He is perhaps best known for his invention, almost 200 years ago, of the miner's safety lamp (the Davy Lamp) in 1815, which he made public at a meeting of the Royal Society on 3 November 1815 and formally presented on 9 November. There had been a number of serious mining explosions caused by firedamp or methane gas often ignited by the open flames of the lamps in use resulting in much loss of life. Davy's lamp had an iron gauze or mesh to enclose the lamp's



Andrew Conacher holds up miner's safety lamps.
Picture: KIRK GILMOUR, Wollongong Advertiser 6 August 2014

flame (acting as a flame arrestor) thus preventing the methane gas burning inside the lamp to pass out into the atmosphere. The lamp also provided a test for the presence of gases. If flammable gases were present the flame of the lamp burnt higher and with a blue tinge. The lamp saved lives and helped increase coal production. Davy did not patent the lamp.



Sir Humphry was awarded the Society's Rumford Medal for the lamp invention in 1816 and the Royal Medal for his work, in 1827. With his focus on Sir Humphry Davy, Andrew brought to life a fascinating mix of science and mining safety dating back 200 years. His talk was very well attended and enthusiastically received and we thank him very much for his presentation. **TB**



A statue of Davy stands in Penzance, Cornwall; he holds his safety lamp in his right hand.



Sir Humphry Davy, 1830 engraving
Photos: http://en.wikipedia.org/wiki/Humphry_Davy