Life Father, Like Son

William Henry Bragg (1862-1942) and his son William Lawrence (1890-1971) shared the 1915 Nobel Prize in Physics “for their services in the analysis of crystal structure by means of X-rays”. Only two years earlier the Braggs had established that X-rays could be used to determine the molecular structure of crystalline compounds with atomic resolution. Significantly, the structures of sodium chloride and potassium chloride, bromide, and iodide were first described in a paper published in the September 1913 issue of the Proceedings of the Royal Society of London, a seminal publication that effectively marked the beginning of the science of X-ray crystallography. The recognition conferred on the Braggs was also remarkable because it was the first (and to this date the only) time that a father and son duo has jointly received a Nobel Prize. Equally impressive, William Lawrence was only 25 at the time, the youngest Nobel laureate ever in the sciences… what a role model for college students today!

The stamp illustrated in this note was issued in the Isle of Man in 1983 to commemorate the centennial of King William’s College, the school where William Henry Bragg received his secondary education (1875-1881) before moving to Trinity College, Cambridge. In addition to a portrait of the elder Bragg, the stamp features the well-known face-centered cubic structure of sodium chloride and the X-ray spectrometer he developed for his pioneering studies. Both hardware and software for X-ray crystallography have evolved tremendously in the ensuing decades and a stunning number of crystal structures have been determined since the early days of the Braggs. Nowadays, just a little over a century after the birth of X-ray crystallography, it is worth noting that the Cambridge Structural Database, the main repository for crystallographic data of organic and organometallic compounds, contains more than three quarters of a million entries!