

# Encounters with Chemistry

# Charles Darwin

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*Many famous nonchemists have left behind accounts of their first encounter with chemistry. Whether the person in question was a psychologist, a writer, a critic, an artist, an economist, a mathematician, or a philosopher, whether the experience was brief or prolonged, whether it was pleasant or unpleasant, the purpose of this series is to record these encounters and do so in the person's own words whenever possible.*

The English naturalist Charles Darwin (figure 1) needs no introduction to modern-day scientists. As a result of the publication in 1859 of his book, *On the Origin of Species*, his name has become virtually synonymous with the concept of biological evolution. Among the more than 19 books that he wrote during his life, his travel journal, *The Voyage of the Beagle* (1839), and his study of human evolution, *The Descent of Man* (1871), have remained, along with the *Origin*, continuously in print and are still widely read.

In old age he wrote a short autobiography, which was published in an abridged form by his son Francis in 1887, along with a collection of his letters.<sup>1</sup> A fully restored edition of the autobiography was finally pub-

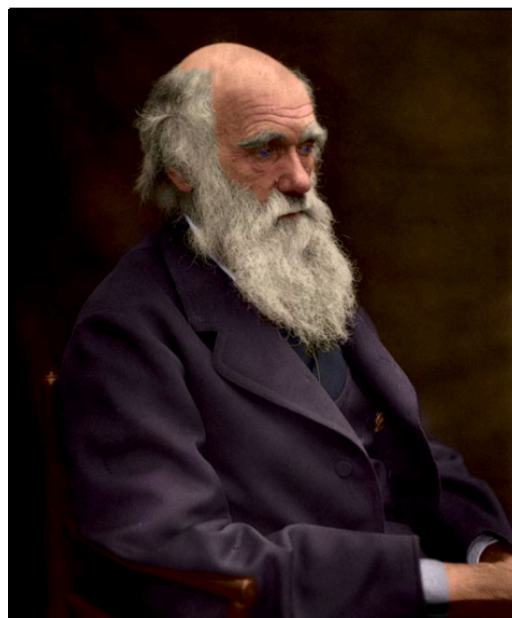


Figure 1. Charles Darwin  
(1809-1882)



Figure 2. Erasmus Darwin  
(1804-1881)

lished by his granddaughter, Nora Barlow, in 1956.<sup>2</sup> In the autobiography, Darwin revealed that, as a school boy, he had developed a keen interest in chemistry, largely at the instigation of his older brother Erasmus or “Ras” (figure 2), who was being trained, like his father and grandfather before him, for a career in medicine:<sup>1</sup>

*Towards the close of my school life, my brother worked hard at chemistry, and made a fair laboratory with proper apparatus in the tool-house in the garden, and I was allowed to aid him as a servant in most of his experiments. He made all the gases and many compounds, and I read with great care several books on chemistry, such as Henry and Parkes’ “Chemical Catechism.” The subject interested me greatly and we often used to go on working till rather late at night. This was the best part of my education at school, for it showed me practically the meaning of experimental science. The fact that we worked at chemistry somehow got known at school, and as it was an unprecedented*

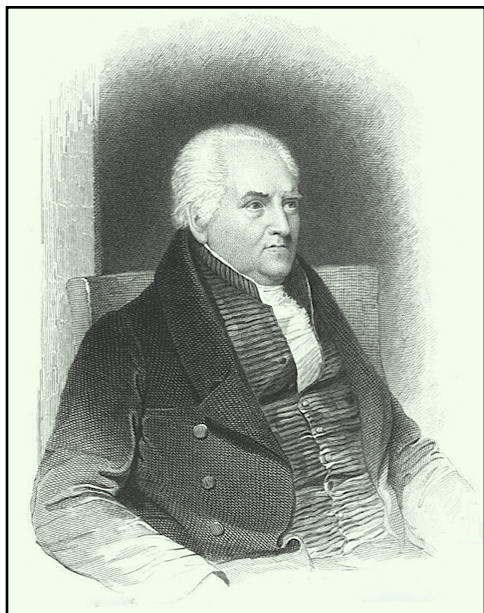


Figure 3. Samuel Parkes  
(1761-1825)

fact, I was nicknamed “Gas.” I was also once publicly rebuked by the head master, Dr. Butler, for thus wasting my time on such useless subjects; and he called me very unjustly a “poco curante,”<sup>3</sup> and as I did not understand what he meant, it seemed to me a fearful reproach.

The “Henry” referred to by Darwin was William Henry (1774-1836), a British technical chemist and the discoverer of Henry's law of gas solubility. As for the book, this was probably Henry's *The Elements of Experimental Chemistry*. Originally entitled *An Epitome of Chemistry*, it went through at least 11 editions between 1801 and 1829. Samuel Parkes (figure 3) was likewise a British technical chemist and soap maker whose popular introduction to chemistry – *The Chemical Catechism* (figure 4) – would pass through 12 editions between 1806 and 1829.

Given the enormous importance of “Gas” Darwin's later work in biology, chemists can perhaps forgive the fact that his early interest in chemistry waned as he grew older.

## References and Notes

1. F. Darwin, Ed., *The Life and Letters of Charles Darwin*, Vol. 1, Appleton: New York, NY, 1896, p. 32.
2. H. Barlow, Ed., *The Autobiography of Charles Darwin, 1809-1882, with Original Omissions Restored*, Collins: London, 1956.
3. Italian for “happy-go-lucky.”

## Publication History

Published in abridged form in *The Chemical Intelligencer*, 2000, 6(2), 59.

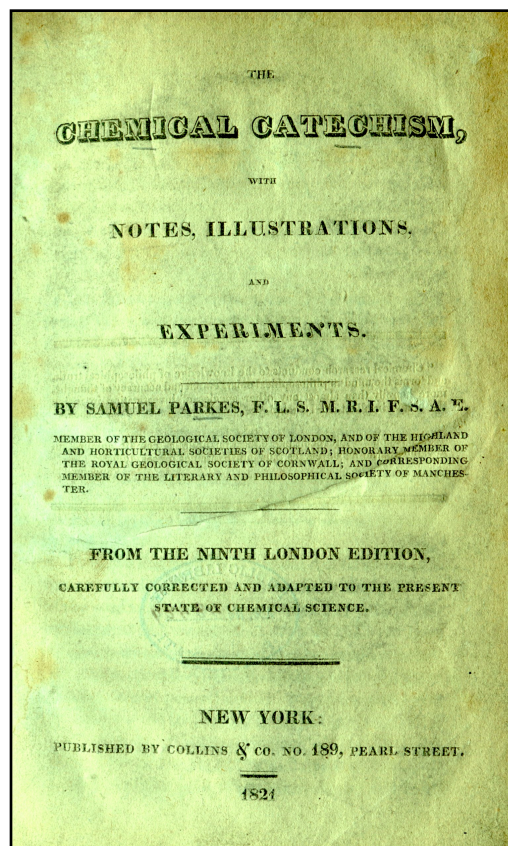


Figure 4. The title page to the 1821 American printing of the ninth London edition of Samuel Parkes' popular *The Chemical Catechism*.