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### **Bohr's Creation of his Quantum Atom**

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Fresh letters throw new light on the content and state of Bohr's mind before and during his creation of the quantum atom. His mental furniture then included the atomic models of the English school, the quantum puzzles of Continental theorists, and the results of his own studies of the electron theory of metals. It also included the poetry of Goethe, plays of Ibsen and Shakespeare, novels of Dickens, and rhapsodies of Kierkegaard and Carlyle. The mind that held these diverse ingredients together oscillated between enthusiasm and dejection during the year in which Bohr took up the problem of atomic structure. He spent most of that year in England, which separated him for extended periods from his close-knit family and friends. Correspondence with his fiancée, Margrethe Nørlund, soon to be published, reports his ups and downs as he adjusted to J.J. Thomson, Ernest Rutherford, the English language, and the uneven course of his work. In helping to smooth out his moods, Margrethe played an important and perhaps an enabling role in his creative process.