

P.W. Hawkes

**From a fluorescent patch to picoscopy, one strand in the history of the electron**

ABSTRACT. The particle nature of the electron was established in 1897 and the complementary wave nature in 1923. Four years later, it was shown that the behaviour of the electron in a rotationally symmetric electrostatic or magnetic field bears a close analogy to that of light in a lens, a finding that led to the notion of an electron lens and, soon after, to the first electron microscopes. The development of the three main families of microscopes and the struggle to overcome the optical aberrations are described; with the arrival of aberration correctors in the late 1990s, electron microscopes capable of furnishing information in the 50–100 pm range are now in current use.

*Nanotechnology Perceptions* 7 (2011) 3–20

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