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Field electron emission (also known as field emission (FE) and electron field emission) is emission of electrons induced by an electrostatic field. The most common context is field emission from a solid surface into vacuum. However, field emission can take place from solid or liquid surfaces, into vacuum, air, a fluid, or any non-conducting or weakly conducting dielectric. After his death in 1896, the will of Swedish industrialist Alfred Nobel established the Nobel Prizes. Nobel's will specified that annual prizes are to be awarded for service to humanity in the fields of physics, chemistry, physiology or medicine, literature, and peace. Similarly, the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel is awarded along with the Nobel Prizes. Background. Since the introduction of what became today's standard for cryo-embedding of biological macromolecules at native conditions more than 30 years ago, techniques and equipment have been drastically improved and the structure of biomolecules can now be studied at near atomic resolution by cryo-electron microscopy (cryo-EM) while capturing multiple dynamic states. Fig. 1. Schematic overview of three simplified mechanisms of electron transport through (brown) microbial nanowires of (right) a microbial cell to (left) an electrode; (a) delocalised electron transport through closely stacked aromatic residues, (b) coherent tunnelling through bridge states [labelled 'b'] or superexchange, and (c) incoherent hopping through attached redox-active moieties ...