



## **Late 1950's**

# **Vacuum vapor deposition equipment**

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In transistor fabrication, vacuum deposition was used for deposition of solid phase diffusion sources, deposition of gold(Au)/silver(Ag) electrodes, Al electrodes. The basic principle of the vacuum vapor deposition is said to go back to Michael Faraday in 1857 and it became widely used such as the formation of anti-reflection films of optical lens by the practical application of oil diffusion pump in the 1930 's.

With the development of the diffusion layer formation by the vapor phase diffusion method, formation of the vacuum deposition of the solid phase diffusion source became unnecessary, but it was indispensable for electrode formation. In particular, in planar integrated circuit technology invented by Fairchild Semiconductor in 1959, it became a key technology used to deposit aluminum (Al) interconnect connecting multiple transistors.

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