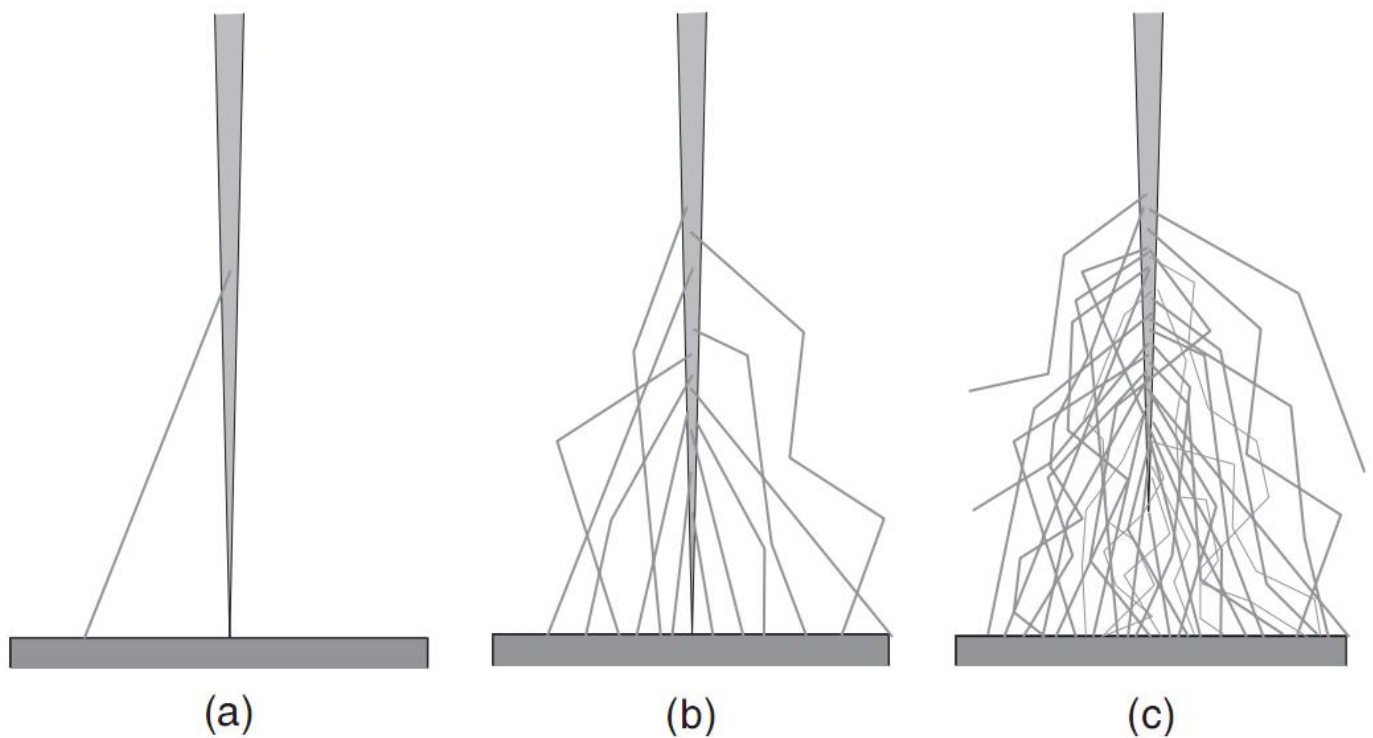


## Primary Electron Scattering in VP-ESEM



Schematic diagram shows the scattering of an electron beam in vacuum and through a gas.

In (a), the high-vacuum case, the primary beam is largely unscattered.

In (b), where there are gas molecules in the chamber, some scattering occurs. There is still a sufficiently unscattered part of the primary beam to form a focused probe.

If the pressure is much too high, as in (c), primary electrons are completely scattered (plural scattering) and do not form a focused probe.