

ABSTRACT**PORTABLE HIGH RESOLUTION SCANNING ELECTRON MICROSCOPE
COLUMN USING PERMANENT MAGNET ELECTRON LENSES**

A detachable, portable SEM column that is easily disconnected from the electron gun assembly and specimen chamber of the system, allowing different column designs to be used in a given SEM system. As an alternate design, the electron gun and column are configured as a single detachable, portable assembly. The column of the present invention contains a condenser lens and an objective lens, both designed employing permanent magnet elements for primary field generation. Relatively small coils are used for scanning and precise adjustment of focus.

FIG. 3.