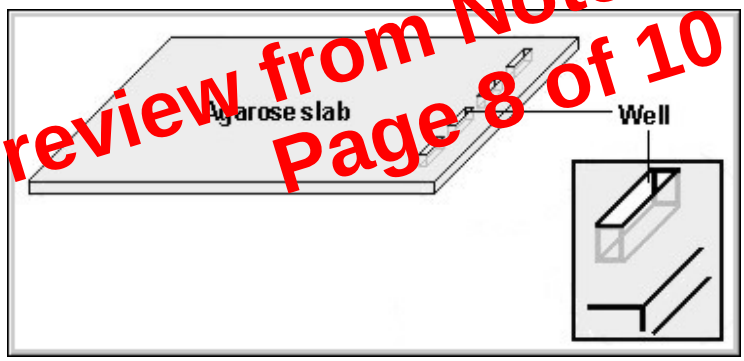
and 2%. Since molecular sieving takes place to varying extents, the more concentrated the gel, the slower the mobility of the molecules in the same buffer and applied potential difference.

Agarose gels are normally used to separate native proteins, that is, proteins that have retained higher orders of structure. One frequently refers to such gels as "native gels". Separation on native gels takes place by both charge AND size. Polyacrylamide gels are normally used in conjunction with sodium docecyl sulphate.

Two major materials used in making gels are-:

1. **Agarose –** One of the materials used in electrophoresis. It is extracted in the form of agar from several species of red marine algae, or seaweed. It is highly fragile and can easily destroyed by handling. Agarose gels have a very large pore size and are used primarily to separate molecules (large molecular mass). It can be processed faster than polyacrylamides gels but their resolution is inferior. The band formed are usually far apart. Agarose is a linear polysaccharide made up of basic agarobiose unit which comprise of alternate unit of galactose and anhydrogalactose. It is usually used between 1% and 3%.

Preview from Notesale.co.uk
Page 8 of 10



2. **Polyacrylamide –** Polyacrylamide gels can be used to provide varieties of electrophoretic condition. It is currently most often used in the field of immunology and protein analysis, often used to separate different proteins or isoforms of the same protein into separate bands. The pore size can be varied so as to produce different molecular sieving for protein of different sizes. Polyacrylamide gels offer greater flexibility and more sharply defined banding than agarose gel.