To detect the presence of the polymerase chain reaction products, gel electrophoresis is used with subsequent treatment of the gel with ethidium bromide. This method uses the negative charge of the DNA fragments. The DNA fragments are negatively charged due to the phosphate residues contained therein. Applying an electric field causes the polymerase chain reaction products to migrate through a gel-like medium, usually agarose. The DNA fragments travel through the "agarose sieve" from the negative pole to the positive pole. Smaller fragments travel faster through the "agarose sieve", so they are close to the positive pole of the gel. The larger fragments move slower and stay close to the negative pole. To visualize DNA fragments, the gel is treated with an aqueous solution of ethidium bromide. The molecule of ethidium bromide is planar and can intercalate between the bases of the DNA fragments. Only after the formation of such a complex and illumination with UV light can the polymerase chain reaction products be seen and photographed in the form of bands.