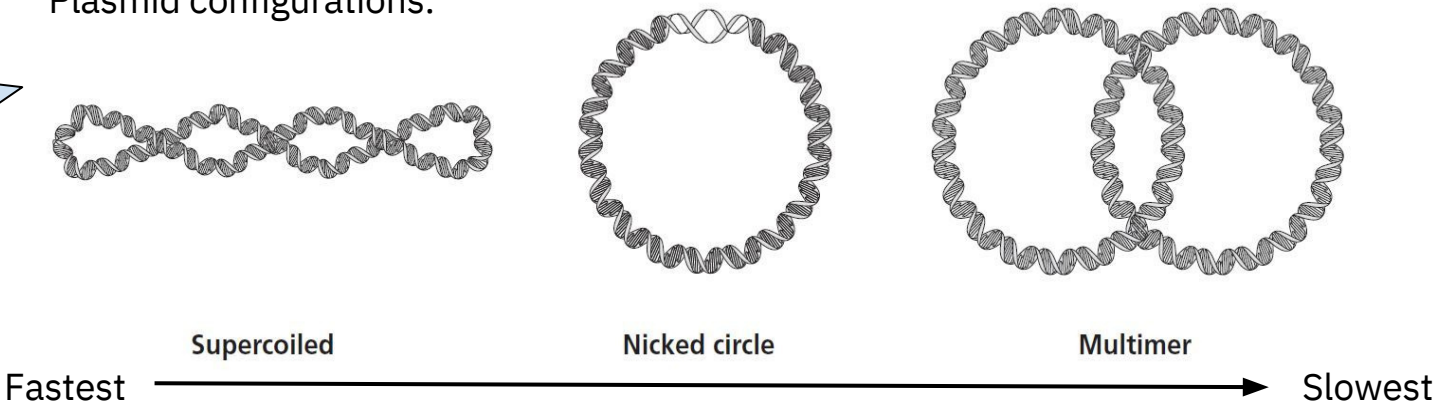


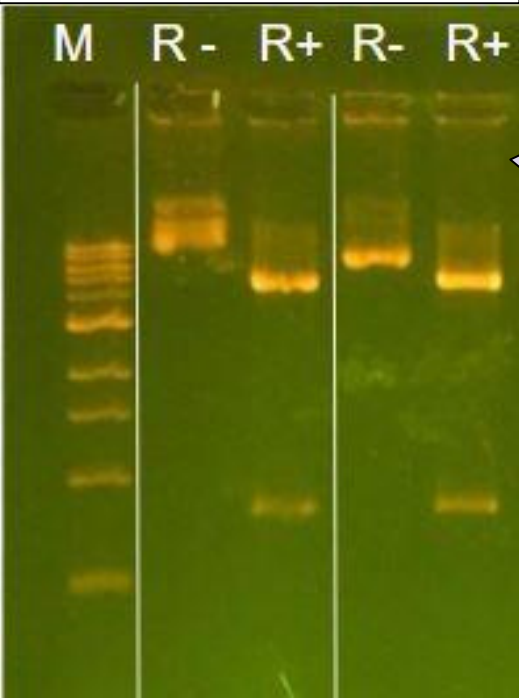
Laboratory 4A

- Supercoiled: A plasmid configuration consisting of a single plasmid that has been twisted. The shape of this plasmid is more compact (takes up less space).
- Nicked circle: A plasmid configuration that consists of a single plasmid that has a break in one of it's two strands. The shape of this plasmid is circular.
- Multimer: A plasmid configuration consisting of multiple plasmids that have interlocked during formation.

Plasmid configurations:

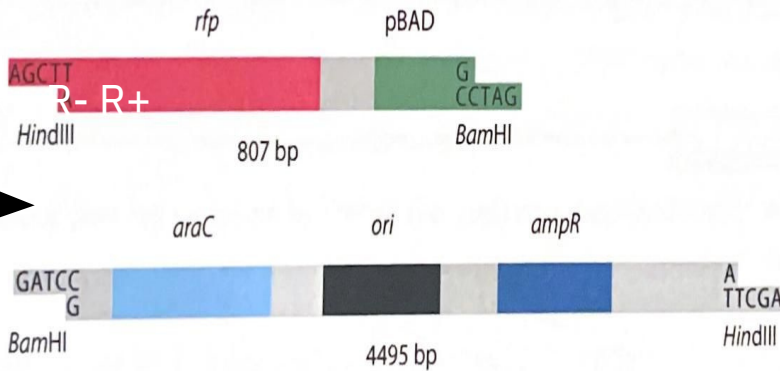


Gel Results Sample

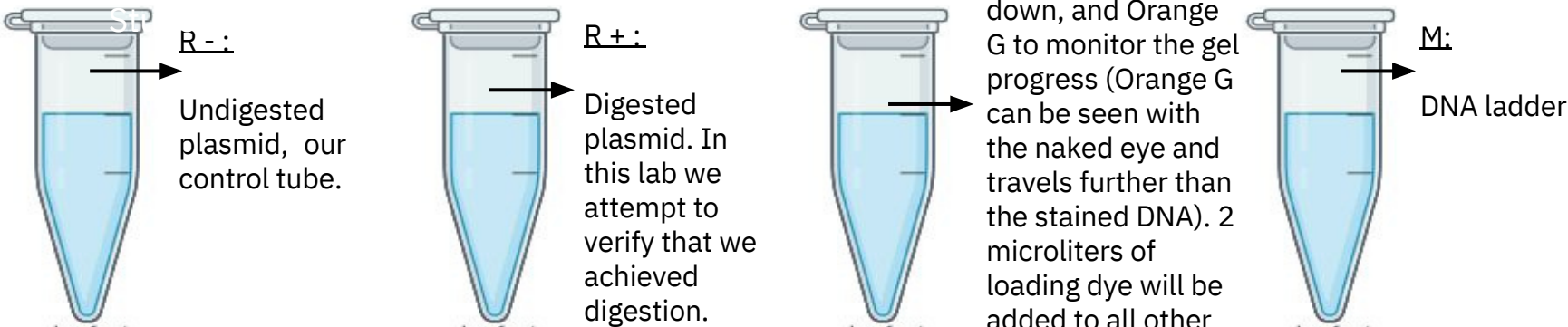


- R - : In these lanes you can see the undigested pARA-R at 5,302 bp length. The plasmid was replicated in a bacterial cell and can have all 3 configurations!
- R +: In these lanes, you should see the digested plasmid. BamHI and HindIII cut the plasmid at specific RE sites. This creates a 807 bp pBAD-rfp fragment and a 4,495 bp ampR-ori-araC fragment.

pARA-R digestion fragments:



What's in my tubes?



Loading Dye:
Contains a DNA stain, glycerol to weight the sample down, and Orange G to monitor the gel progress (Orange G can be seen with the naked eye and travels further than the stained DNA). 2 microliters of loading dye will be added to all other tubes at some point in the lab.