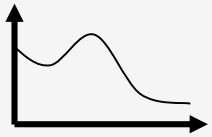
Genetic wood identification via Taxon Primer

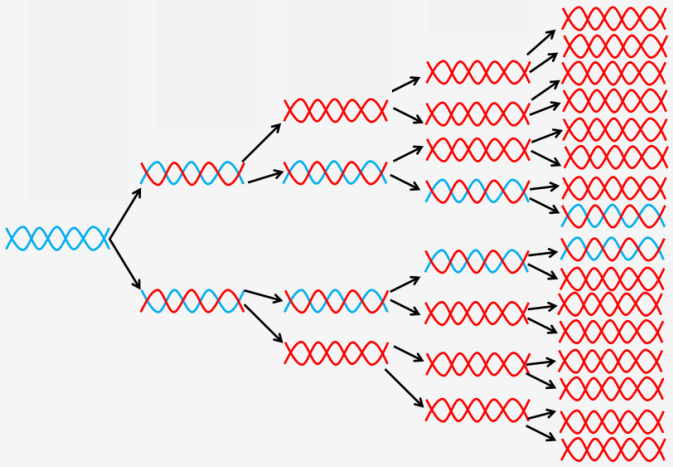
1. Homogenisation

2. DNA extraction

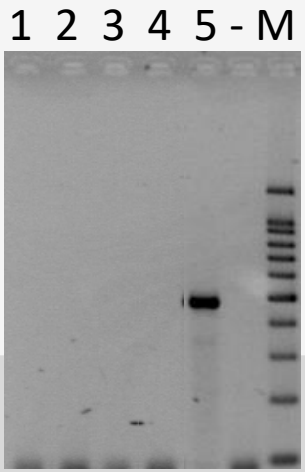
3. Measurement of the DNA quantity and quality



4. Amplification via Taxon Primer



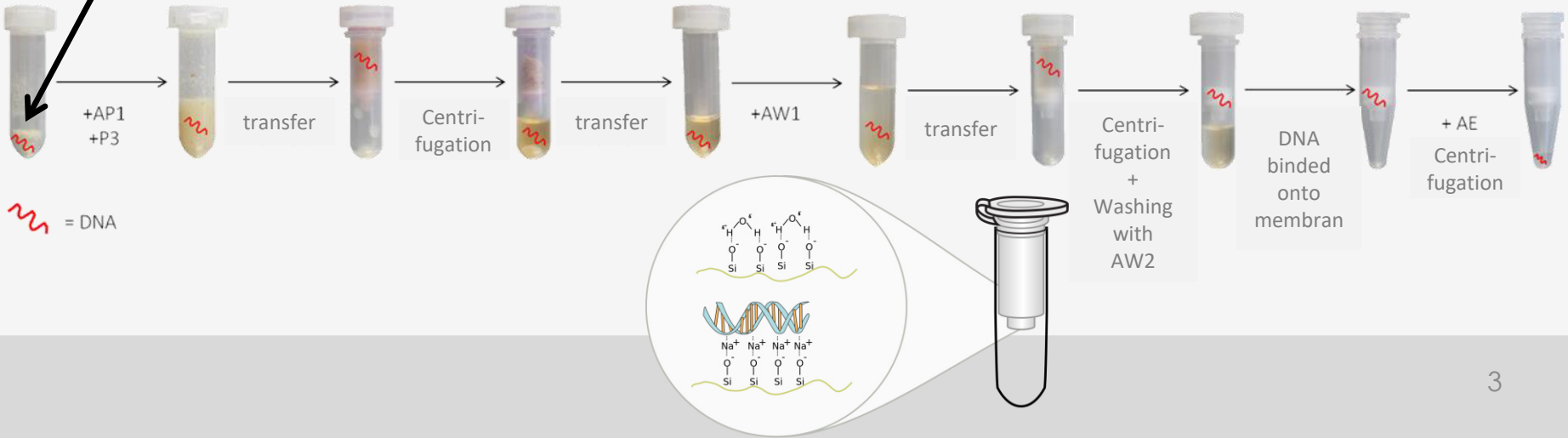
5. Detection



1 Homogenisation

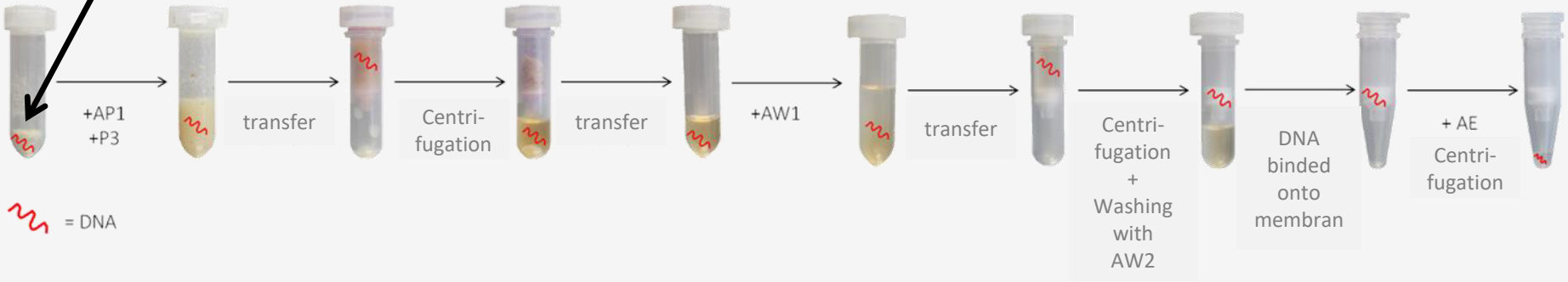
1 Homogenisation

2 DNA extraction

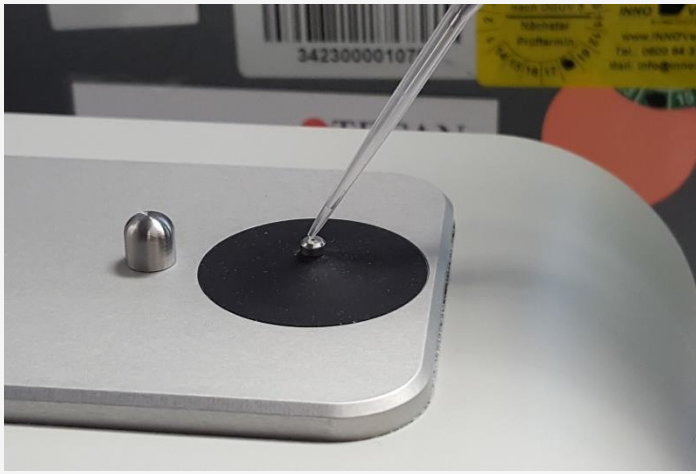


1 Homogenisation

2 DNA extraction

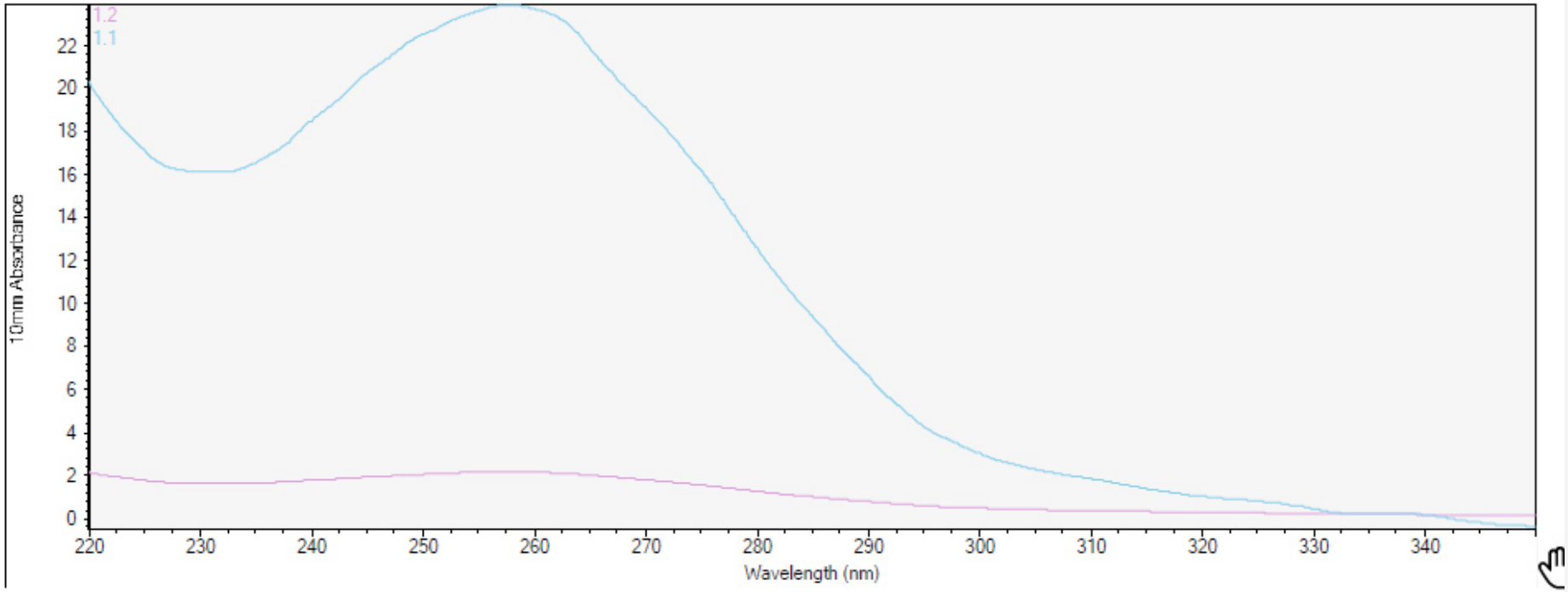


3 NanoDrop Measurement

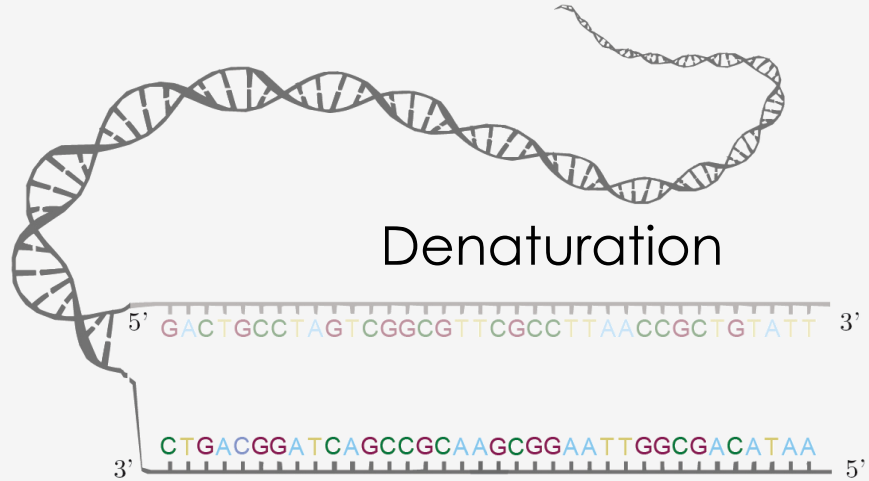


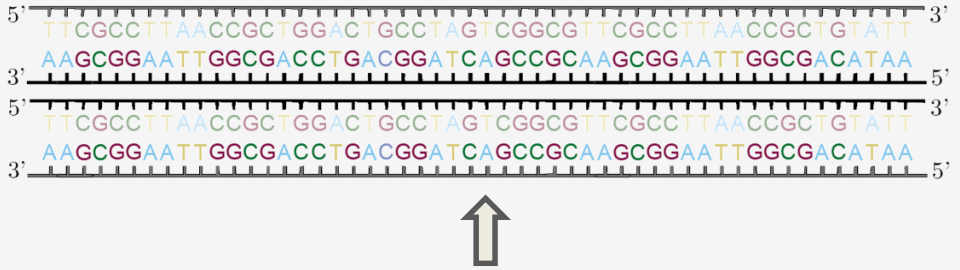
3 DNA quantity and quality

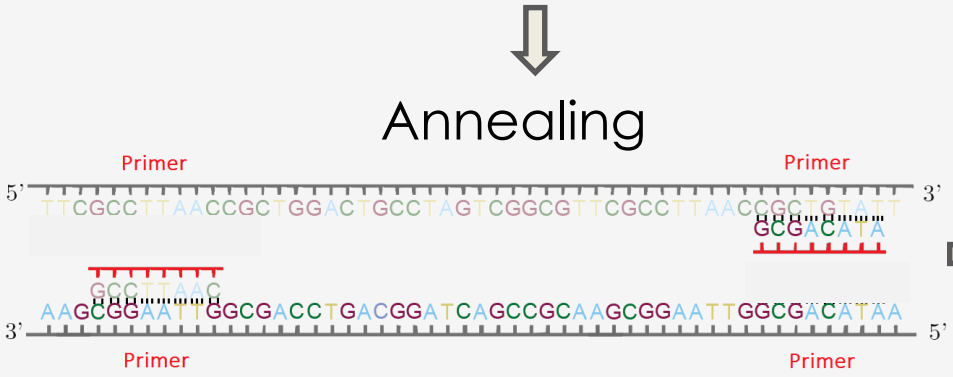
#	Sample ID	User name	Date and Time	Nucleic Acid Conc.	Unit	A260	A280	260/280	260/230	Sample Type	Factor
10	1.1	NanoDrop	04.08.2017 14:33:01	1180,0	ng/µl	23,600	12,483	1,89	1,48	DNA	50,00
11	1.2	NanoDrop	04.08.2017 14:34:28	99,4	ng/µl	1,989	1,107	1,80	1,35	DNA	50,00

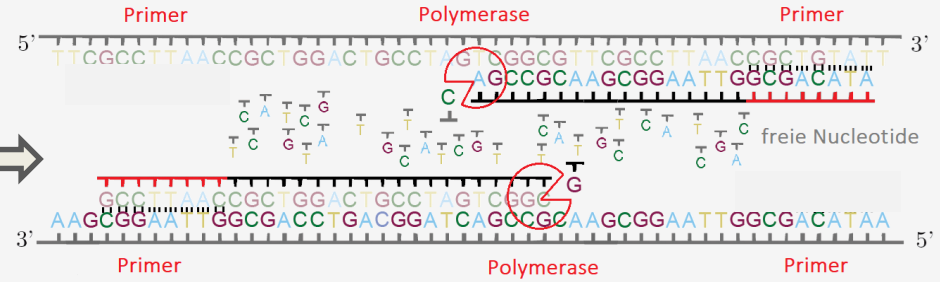


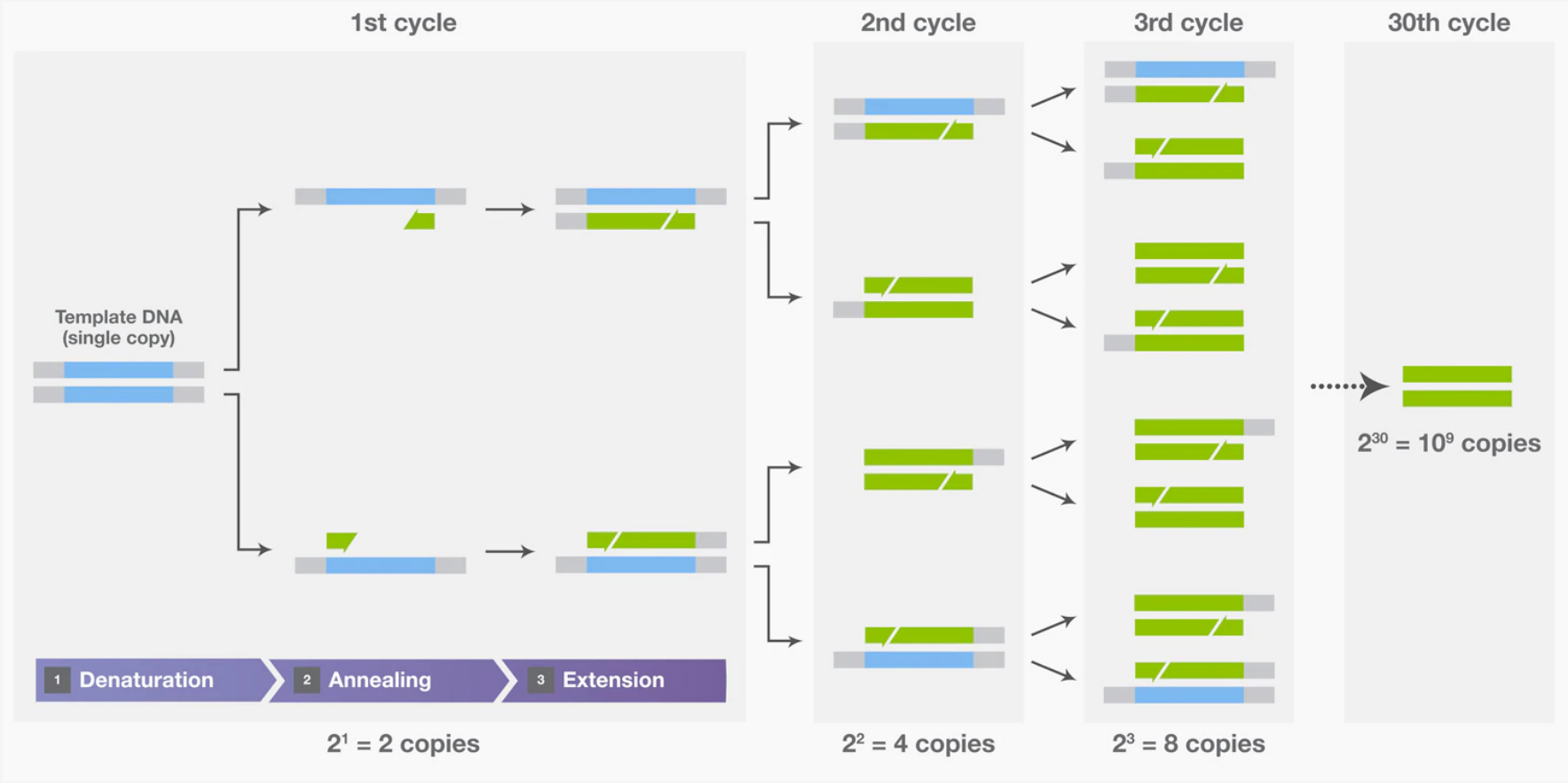
4 PCR – Polymerase chain reaction



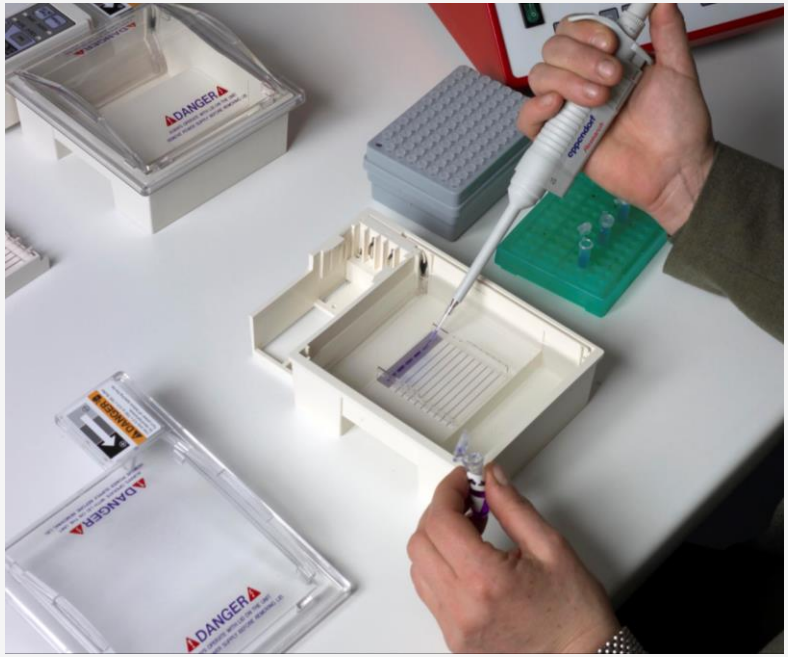


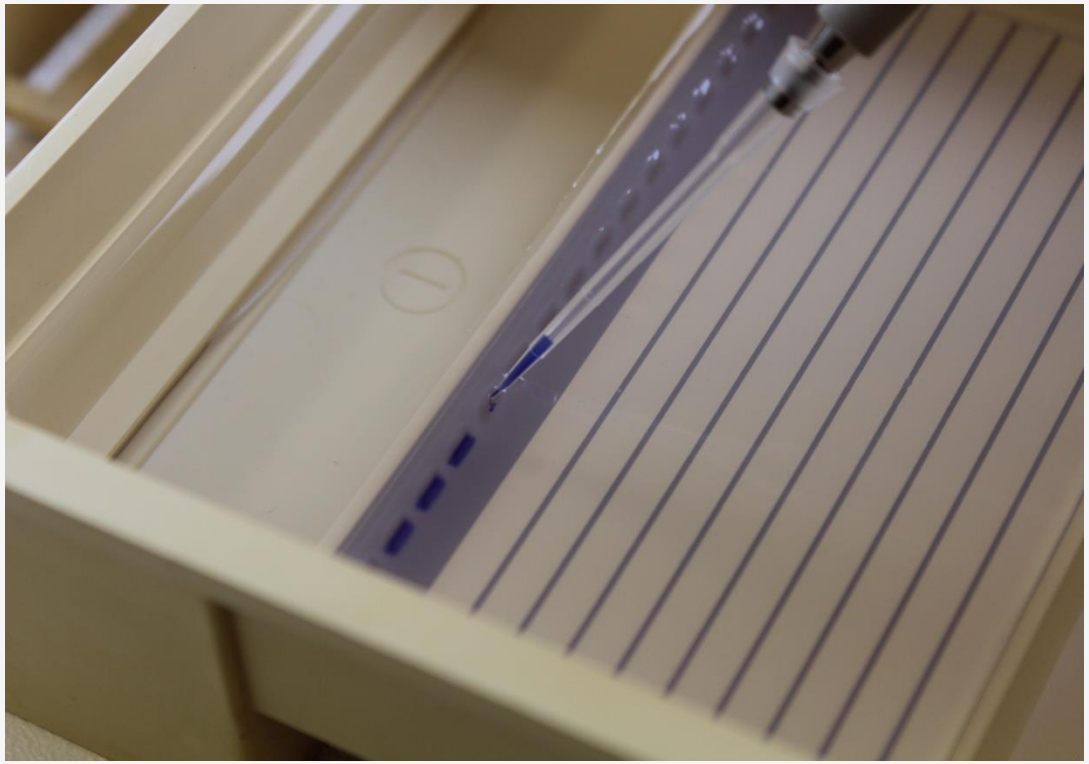


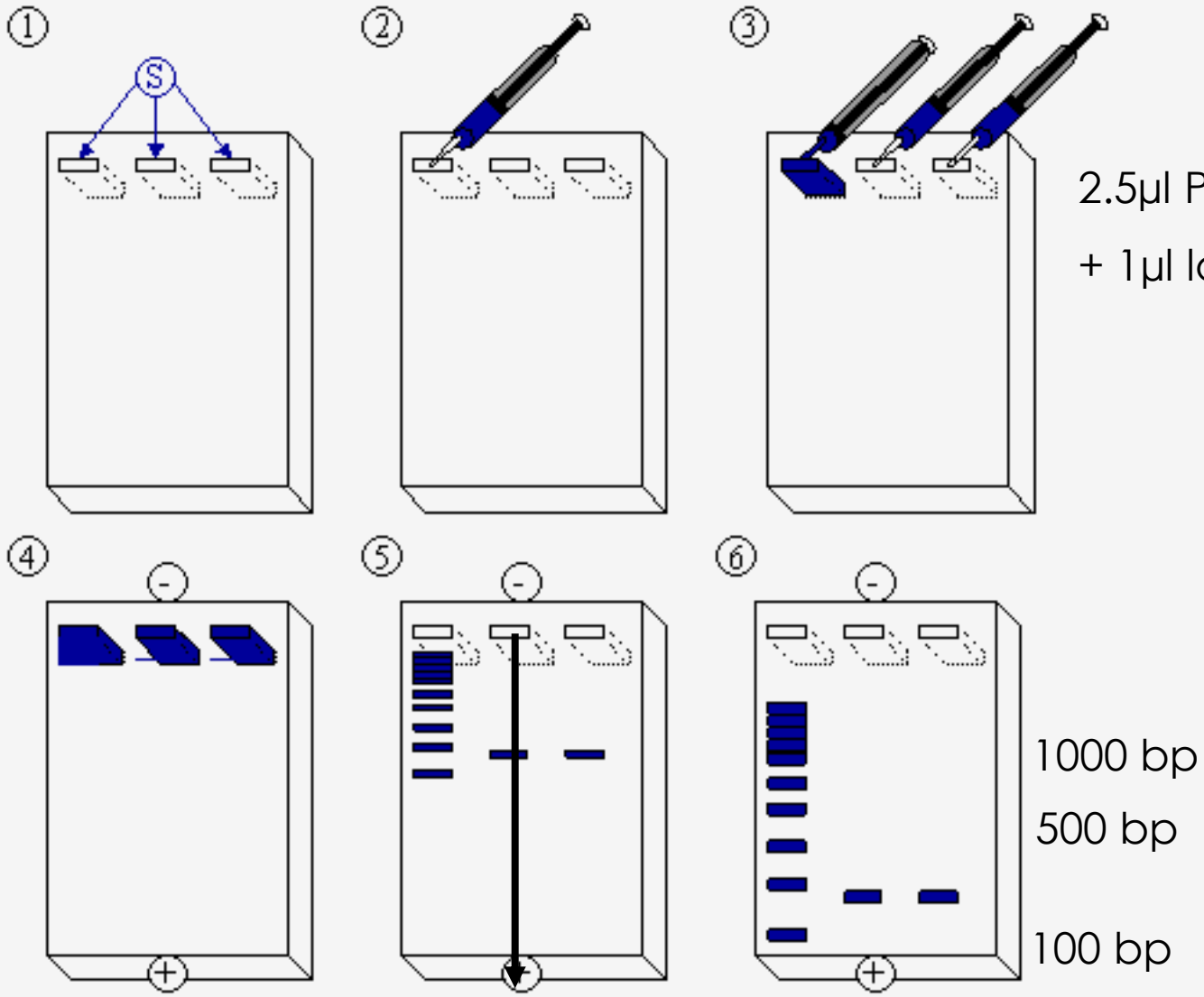



1st cycle
2nd cycle
3rd cycle
30th cycle
Template DNA
(single copy)
1 Denaturation
2 Annealing
3 Extension
$2^{30} = 10^9$ copies
$2^1 = 2$ copies
$2^2 = 4$ copies
$2^3 = 8$ copies

5 Detection → Gel electrophoresis







2.5µl PCR product

+ 1µl loading buffer

135 V

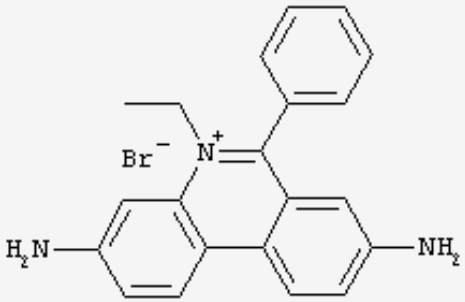
30min

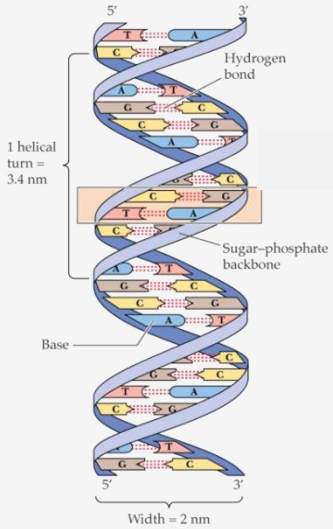
1000 bp

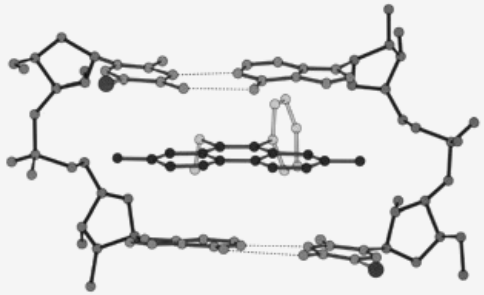
500 bp

100 bp

Staining of PCR products with Ethidiumbromide

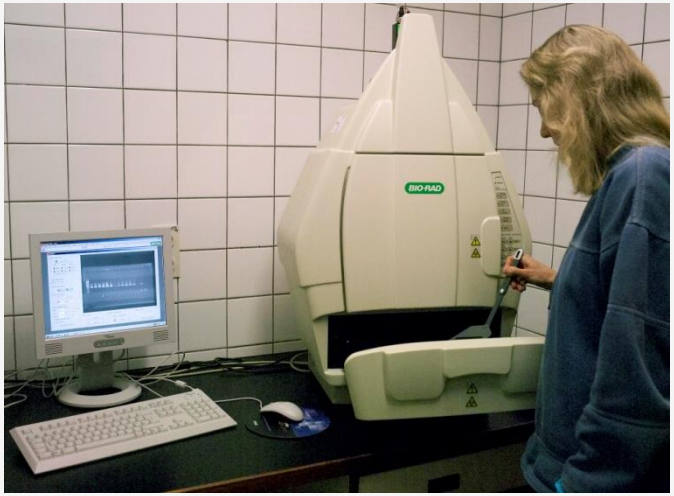




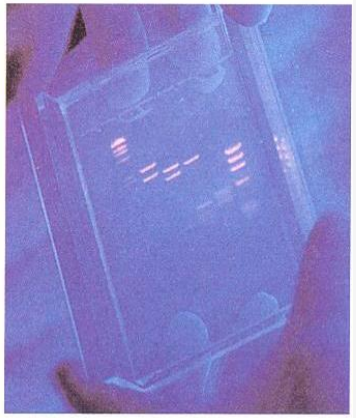


Negative photo

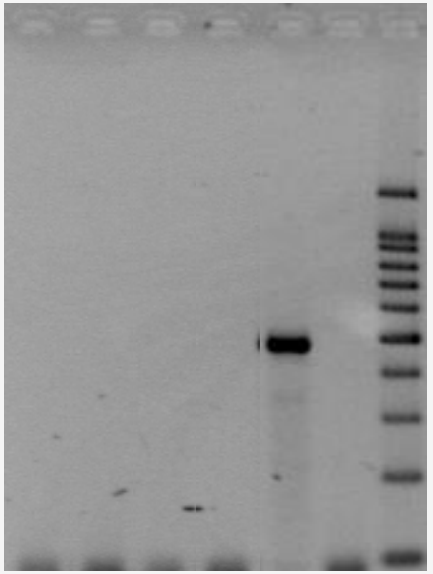
Documentation



UV-light



1 2 3 4 5 - M



Taxon primer specific for:

1 = *Entandrophragma cylindricum*

2 = *Khaya spp.*

3 = *Carapa spp.*

4 = *Swietenia mahagoni*

5 = *Swietenia macrophylla*