**Schwer Lab**

## Some buffers for DNA work:

**5X TBE** (89 mM Tris, 89 mM boric acid, 2 mM EDTA)

To 6 Liters of distilled water add:

| | |
|---|---|
| Tris Base (121.14 g/mol) | 432 g |
| Boric Acid (61.83 g/mol) | 220 g |
| EDTA dihydrate (372.24 g/mol) | 29.8 g |

Bring total volume to 8 L. Add stir bar and stir o/n at RT.

**20× E buffer for Southern blotting**

10 Liters:

| | |
|---|---|
| 970 g | Tris base (MW 121.1) |
| 1360 g | Sodium acetate trihydrate (MW 136.1) |
| 74 g | EDTA dihydrate (MW 372.2) |
| 500 mL | HCl concentrated (MW 36.5) |

Adjust pH to 7.8 - 9.0. Store at RT.

**20x SSC for Southern blotting**

| | |
|---|---|
| NaCl | 1753.2 g |
| Tri-Na Citrate ($Na_3C_6H_5O_7.2H_2O$; 294.1 g/mol) | 882.3 g |
| distilled water to 10 L total volume | |

**20× SSCPE**

10 Liters:

| | |
|---|---|
| 1400 g | NaCl (MW 58.4) |
| 881.5 g | Sodium citrate dihydrate (MW 294.1) |
| 354 g | Monobasic potassium phosphate (MW 136.09) |
| 74 g | EDTA (MW 372.2) |

Adjust pH to 7.2 with NaOH. Can be autoclaved (20 min). Store at RT.

**Standard TE Buffer [**10 mM Tris-Cl, pH 8**,** 1 mM EDTA]

0.5 mL 1 M Tris, pH 8
100 μL 0.5 M EDTA, pH 8
MilliQ water to 50 mL

**TE Buffer (low EDTA) for genomic DNA** [10 mM Tris-Cl, pH 8, 0.1 mM EDTA]

| | |
|---|---|
| 0.5 mL | 1 M Tris, pH 8 |
| 10 μL | 0.5 M EDTA, pH 8 |

MilliQ water to 50 mL