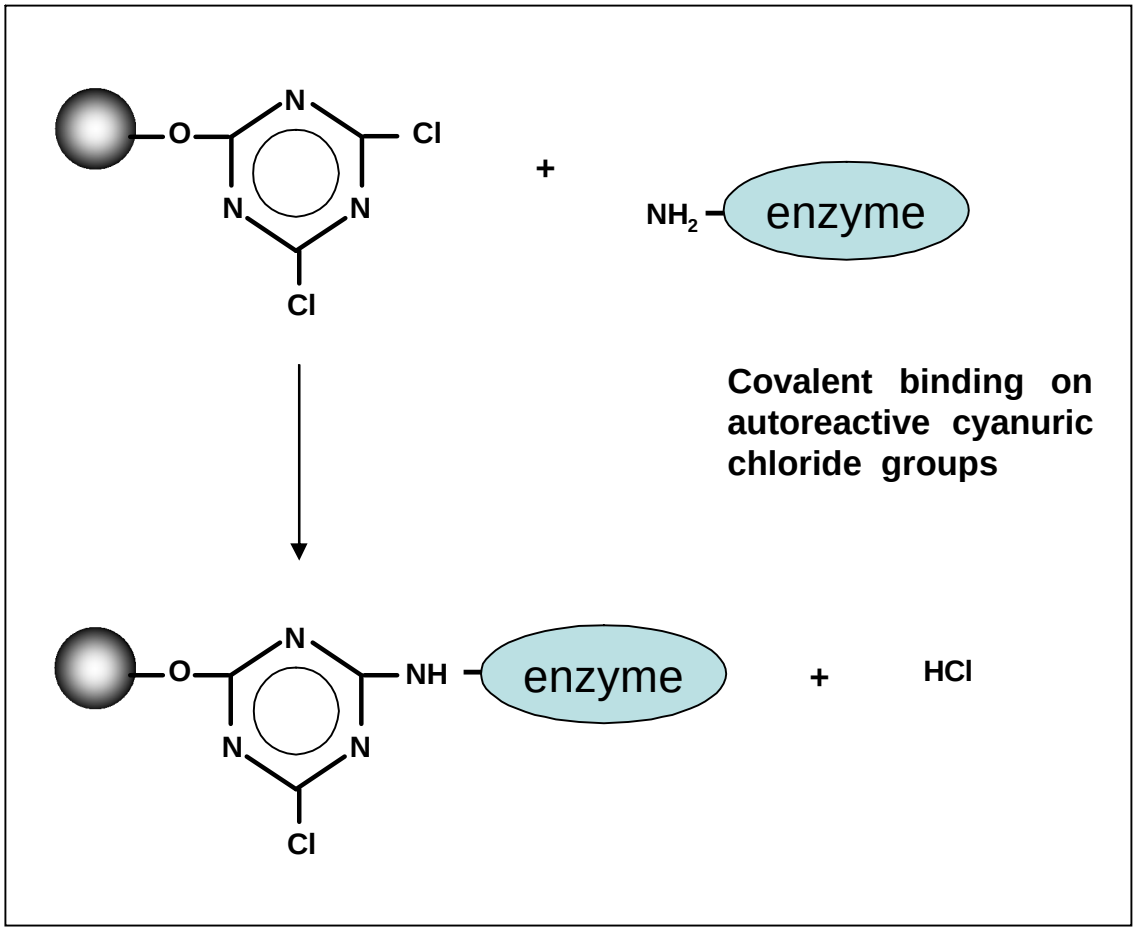
Covalent Immobilization Procedure on SiMAG-Cyanuric

Introduction:

This procedure describes an easy and fast covalent immobilization of enzymes to the terminal autoreactive cyanuric-groups of **SiMAG-Cyanuric** with very high efficiency.

The cyanuric chloride-activated beads react rapidly with enzymes and are therefore suitable for the coupling of bulk quantities.



Equipment and reagents:

- **SiMAG-Cyanuric**
- **Wash & Coupling Buffer:** PBS, pH 7.4 - 8.0
- **Blocking Buffer:** PBS, 2 % BSA, 0.05 % sodium azide or 0.5 M Tris-HCl pH 8.0 or 2 % ethanolamine pH 8.0
- **Storage Buffer:** PBS, 0.1 % BSA, 0.05 % sodium azide
- **Magnetic Separator** (**e.g. MagnetoPURE,** Product Number: MP-10)

Technical Note:

- All buffers used for activation or coupling may not contain amine-groups or proteins.
- For enzymes we recommend to use a minimum amount of 50 µg enzymes per 10 mg **SiMAG-Cyanuric**. In general, the higher the amount of enzymes per milligram of **SiMAG-Cyanuric**, the higher will be the degree of magnetic particle surface coating with the enzymes.

Protocol:

The following protocol describes the immobilization of amine-containing enzymes on *10 mg* particles. This procedure can be scaled up by adjusting volumes of required reagents.

1. Wash the **SiMAG-Cyanuric** particles with 1 ml PBS buffer using a magnetic separator and resuspend the particles in 0.25 ml PBS buffer by vortexing.
2. Add the amine group containing enzymes (e.g. 50 µg enzymes dissolved in ddH_2O) to the particles and mix the suspension on a shaker for 2 hours at room temperature.
3. Add 0.5 ml Blocking buffer to the particles and mix the suspension on a shaker for 30 minutes at room temperature.
4. Wash the particles 2 x with 1 ml PBS and resuspend the particles in Blocking / Storage buffer.