

Synthra C11 Acetate (Catalog No. 011)

The Synthra C11 Acetate module is a completely automated radiosynthesizer for the efficient production of [^{11}C]acetate. The SynthraView software offers both fully automatic as well as manual modes of operation of the Synthra C11 Acetate module.

Gas Phase Capabilities

- ✓ High specific activities are achieved from in-target produced [^{11}C]CO₂ ranging from 1 Ci/ μmol to 10 Ci/ μmol depending on gas purity.

The [^{11}C]CO₂ produced in target is quantitatively trapped in the stainless steel capillary tubing at -180 °C. Afterwards, it is transferred into the reaction loop oven containing CH₃MgBr or CH₃MgCl with a helium flow. [^{11}C]acetate is generated by carboxylation of these Grignard reagents in the loop oven, successively hydrolyzed and purified by SPE cartridges.

[^{11}C] Labeling Possibilities

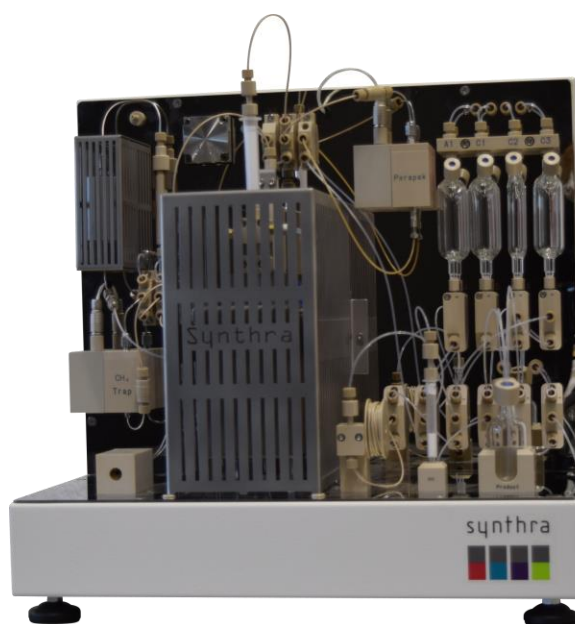
- ✓ **[^{11}C]Acetate production:** [^{11}C]Acetate is ready for release after only 12 min starting from trapping the [^{11}C]CO₂. Under good conditions, the yield is better than 50 %.

General Features

- ✓ **Heating and cooling capabilities**
 - Two heating zones with cooling capabilities
 - Temperature range: -196 °C – 950 °C
- ✓ **Detectors and controllers**
 - Four shielded radiation detectors
 - Two electronic flow controllers
- ✓ **Chemically inert valves** with small dead volume < 35 μL , 5 bar rated
- ✓ **Dimensions** (w x d x h): 42 x 55 x 41 cm
- ✓ **Weight:** approx. 25 kg

Synthesis Features

- ✓ **Four reagent vials**
 - Two small (1 – 3 mL) and two large (10 – 15 mL) volume glass vials for reagents



- ✓ **Two cartridge holders**
- ✓ **SPE unit** for final product formulation

Additional Synthesis Options

- ➔ **Product solvent evaporator**
(Catalog No. 000pse)

GMP Features

- ✓ Synthesis file for [^{11}C]acetate
- ✓ **GMP compliant.** Electronic control and data collection (27/18 channels)
- ✓ **21CFRpart11** & **LIMS** compatible

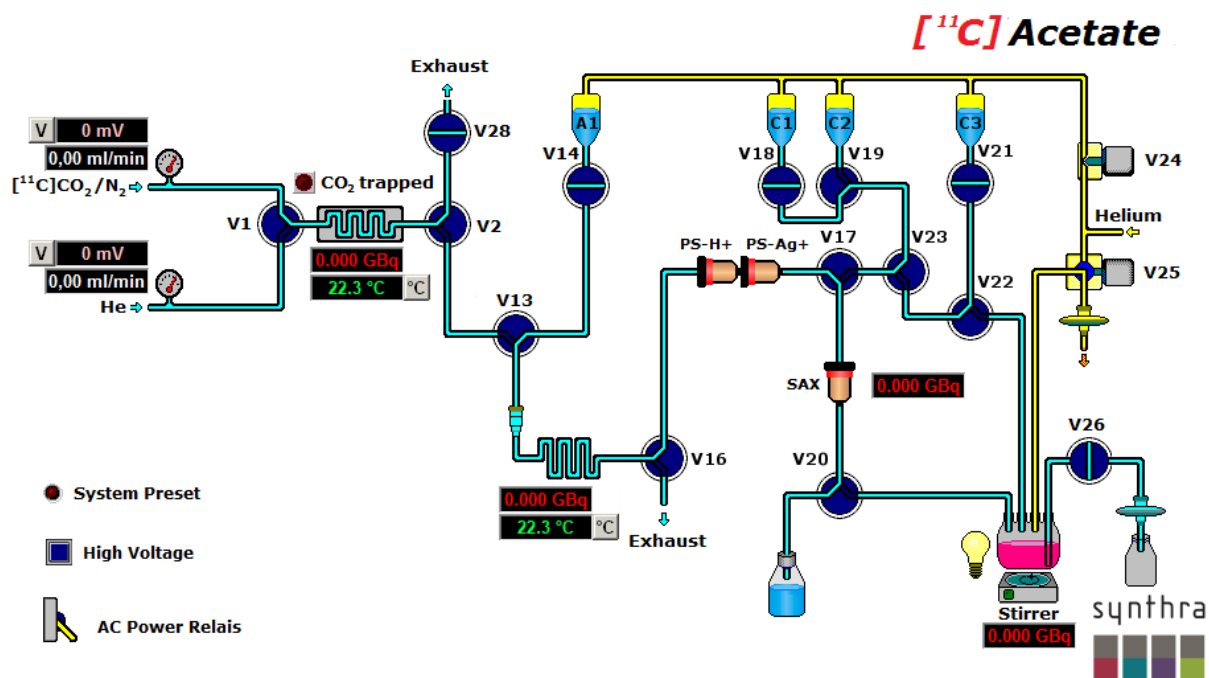
Terminal Control

- ✓ A laptop (Win 10 Pro) with preinstalled controlling software SynthraView is included
- ✓ Four digital inputs for communication with external devices upon request

Synthra C-11 Family

Product Description and Technical Specifications

synthra



The Graphical User Interface (GUI) of the SynthraView software.