

## Synthra RNplus (Catalog No. 004)

Synthra RNplus is a flexible and completely automated radio synthesis system for routine production of wide variety of [<sup>18</sup>F]fluorine labeled compounds by nucleophilic substitution with an automated sequence created for any compound. Automating the synthesis is simple, with the easy-to-use configuration software SynthraView, the Synthra RNplus module offers both, fully automatic and manual modes of operation.

### [<sup>18</sup>F]Labeling Possibilities

- ✓ Synthesis of [<sup>18</sup>F]-labeled compounds like **F-DOPA, FDG, FLT, NaF, FET, FHBG, PSMA 1007, MISO, FAZA, FES and Fluorocholine**
- ✓ Simple creation of user-defined synthesis methods
- ✓ The radio synthesis system has a dedicated sub system for the **recovery and collection of [<sup>18</sup>O]H<sub>2</sub>O** for the purification of the cyclotron produced [<sup>18</sup>F]fluoride.
- ✓ The target activity is measured with a separate detector.

### General Features

- ✓ **Heating and cooling capabilities**
  - Three heating zones with cooling capabilities
  - Temperature range: -50 °C – 200 °C
- ✓ **Detectors and controllers**
  - Five shielded radiation detectors
  - Three pressure sensors
- ✓ **Build-in vacuum pump** (< 5 mbar)
- ✓ **Liquid nitrogen trap** for protecting the vacuum pump from radioactive volatiles
- ✓ **Built-in preparative radio/UV-HPLC system** with isocratic pump, fixed wavelength LED detector with 255 nm or 280 nm, HPLC column and one solid phase extraction (SPE)
- ✓ **Self-cleaning system**
- ✓ **Dispensers and valves**
  - HR-dispenser (up to 50.000 steps, 5 mL)
  - HPLC pneumatic injection valve (3 mL sample loop)
  - Three spare valves for customization



- Chemically inert valves with small dead volume < 35 µL, 5 bar rated

- ✓ **Dimensions** (w x d x h): 52 x 50 x 48 cm
- ✓ **Weight:** approx. 35 kg

### Synthesis Features

- ✓ Two glassy carbon **reaction vessels** (one 5 ml, conic shape and 11 ml) and one **column oven** for a solid support reaction zone, allowing multiple step (homogenous and heterogeneous) synthesis reactions
- ✓ **15 reagent vials**
  - Seven small (1 – 3 mL) and eight large (10 - 15 mL) volume glass vials for reagents
- ✓ **Five cartridge holders** for in-process purification
- ✓ **SPE unit** for final product formulation

### Additional Synthesis Options

- ➔ **Product solvent evaporator**  
(Catalog No. 000pse)
- ➔ **Variable wavelength UV detector**  
(Catalog No. 000vuv)
- ➔ **Quaternary gradient HPLC pump**  
(Catalog No. 000qgp)

# Synthra F-18 Family

## Product Description and Technical Specifications

synthra

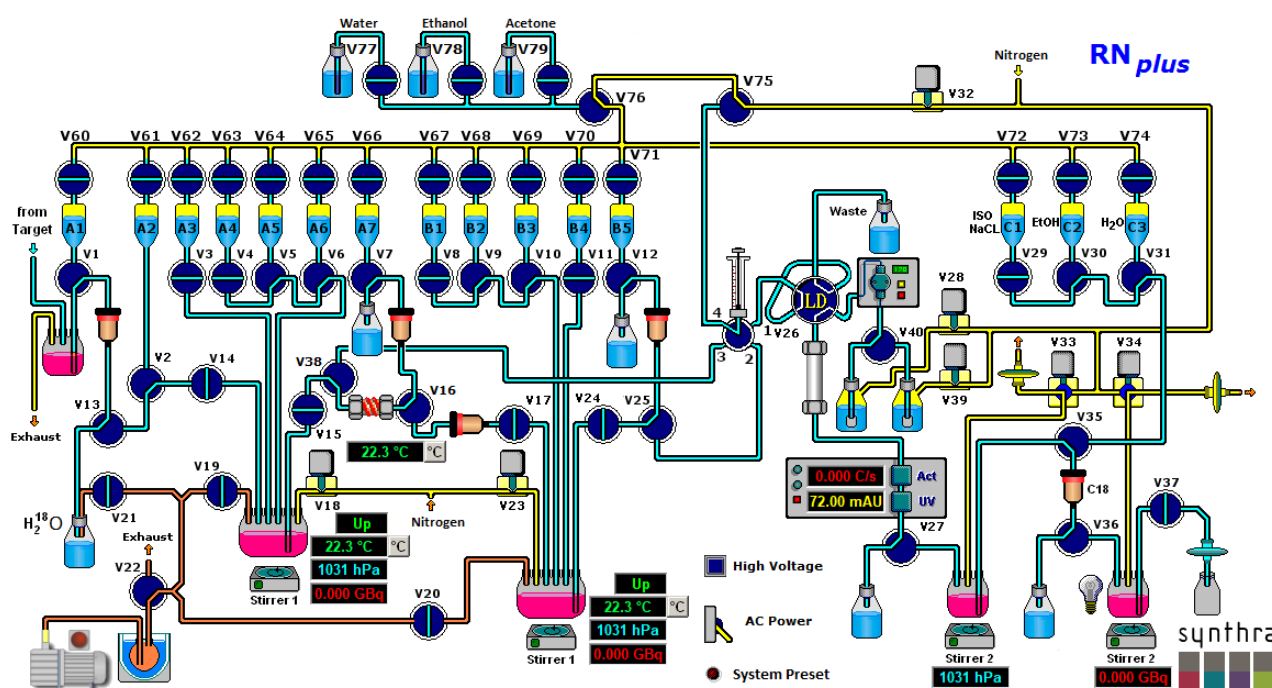


### GMP Features

- ✓ Synthesis files for various tracers available
- ✓ **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



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