PET TRACER SYNTHESIZER

The cutting-edge solution for tracer production and development

For $^{18}$F, $^{11}$C and radio-metals

High yields

Open software

Plug and play operation
All our $^{18}$F processes are nucleophilic. All yields are uncorrected.

**ROUTINE PRODUCTION**

**EFFECTIVENESS**

- High and consistent yields
- Low down time
- One machine, many compounds
- Network client-server application

No lab bench is required: cartridges conditioning, reagents dissolution, HPLC preparation, complete rinsing, all these operations are included in the automated process.

**COMPLIANCE**

We can provide ready to use cassettes and reagents comply with all cGMP and pharmaceutical grade manufacturing requirements. They are supplied fully assembled and ready for use in individually sealed pouches. Single use cassettes prevent cross contamination, ensure reproducible results with bioburden-free productions that facilitate GMP and other regulatory filings. Thanks to the cassette rinsing, numerous back-to-back hot runs can be performed on the same day.

The software includes features that help implementing cGMP and 21 CFR requirements, thus accelerating approvals. AllinOne provides the pharmacists with all the tools needed to track and record accurately all the parameters and events in the course of the development process as well as in routine operation.

- Customizable user access rights (21 CFR part 11 compliant)
- Project version control
- Extensive data logging
- Comprehensive pdf reports compliant with most of radiopharmaceutical manufacturing standards

### Main tracers

<table>
<thead>
<tr>
<th>![Image]</th>
<th>$^{[18F]}$</th>
<th>![Image]</th>
<th>$^{[11C]}$</th>
<th>![Image]</th>
<th>$^{[68Ga]}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDG, dual Run</td>
<td>&gt;70%</td>
<td>F-MPPF</td>
<td>&gt;30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-DOPA</td>
<td>&gt;35%</td>
<td>F-Tyrosine</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLT</td>
<td>25%</td>
<td>F-Meta-Tyr.</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Choline</td>
<td>28%</td>
<td>F-NaF</td>
<td>&gt;95%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDHT</td>
<td>30%</td>
<td>FAZA</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-MISO</td>
<td>20%</td>
<td>AV 4S</td>
<td>30%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Methionine  >25%

DOTA, PSMA: without pre-purification  >70%

DOTA, PSMA: with pre-purification  55-70%

DOTA, PSMA  >95%

All our $^{18}$F processes are nucleophilic. All yields are uncorrected.
SOFTWARE

The easy to use software allows the user to create his own fluid pathway layouts by simple drag and drop actions of cassette components selected from a virtual toolbox.

These very realistic layouts will be the graphical support to create and edit the process sequences. Import and export functions allow sharing and exchanging developments in just a few clicks with collaborators worldwide.

Features also include traceability of all changes during the development process, full records of previous runs, allowing to virtually replay these runs.

RESEARCH AND DEVELOPMENT

CONFIGURATION

AllinOne is configurable to match your current needs while remaining easily upgradable with simple plugins as your requirements increase, without any change in software or footprint.

AllinOne can be delivered, with 18 to 36 actuators that can spin the three-way valves to any position including fully closed and with up to 5 syringe drivers, featuring position, speed and pressure control/feedback, one or more heaters with fast cooling capability, strong pinch valves for high pressure reactions, several gas inlet and exhaust ports, freely positionable sub mCi sensitive radiation detectors and with external I/Os to control external instruments directly from the software.

HPLC

AllinOne is equipped with an integrated HPLC system controlled by the synthesizer. An injection valve, a column selection valve, a radiation detector, and an optional multi-wavelength UV detector are included within the synthesizer. The pump and the eluent selection box can be placed nearby or apart from the synthesizer. Up to three eluent solutions can be dispensed in isocratic or gradient mode.

CONSUMABLES

The cassette is structured around zero dead volume three-way valves manifolds offering up to 36 positions freely assignable to reagent vials, SPE cartridges, syringes etc. All components have been designed from carefully chosen materials compatible with the most aggressive acids, bases and solvents. Perform up to several chemistry R&D runs per hour by avoiding cleaning and rinsing. All fluid pathway parts can be ordered from Trasis for R&D purpose or even with certificates when needed.
### Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (W x D x H)</td>
<td>55 x 41 x 44 cm (21.7 x 15.8 x 17.3 inch)</td>
</tr>
<tr>
<td>Weight</td>
<td>40 kg (88 lbs)</td>
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<tr>
<td>User interface software package</td>
<td>Included</td>
</tr>
<tr>
<td>Three-way valve actuator, 6 positions, with position control</td>
<td>18, 24, 30 or 36, depending on the model</td>
</tr>
<tr>
<td>Syringe actuator with position, speed and force control</td>
<td>4 or 5</td>
</tr>
<tr>
<td>Reactor-Heater amb to 220 °C with fast air cooling</td>
<td>1 or 2 + external (optional)</td>
</tr>
</tbody>
</table>
| Automated processes                                          | • Cartridge conditioning  
• Conditioning of the purification columns  
• Dissolving of lyophilized precursors  
• Synthesis phases  
• Purification  
• Reformulation  
• Extensive rinsing at the end of the synthesis |
| Hot cell requirements                                        | AllinOne can be housed in any shielded hot cells, as it has standard dimensions and there are no dissociated electronics. |
| Software                                                     | Open software with graphical interface, sequence edition, programmable access rights |

### ABOUT TRASIS

At Trasis our primary focus is allowing the medical community to access new radiolabeled therapeutic and diagnostic substances easier and faster. To this end, we design, manufacture, sell and support high performance synthesizers, dose preparation equipment, their shielding and accessories. We also develop customized synthetic methods and instruments. We can provide GMP Active Pharmaceutical Ingredients (API) and assist our customers with their regulatory affairs.

Our proven radiopharmaceutical expertise, coupled with our high-end instruments allows us to provide fully integrated solutions for effective tracer production and faster transition from drug development to marketing authorization. Our equipment is used worldwide in nuclear medicine departments, research centers, radiopharmaceutical production facilities and pharmaceutical companies.

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