Rheni Eo

$^{188}W/^{188}Re$ Generator: high energy β^- and γ emitting radioisotope generator for therapy

FULLY AUTOMATED PROCESS FOR HIGHEST ACTIVITY CONCENTRATION

SIMPLE
Minimize training and staff: time and cost saver solution

HIGH POTENTIAL
Reduce dose to the operator: a convenient solution

FULL SERVICES
Go beyond the generator with a suitable elution-concentration module: a global solution

High concentration & purity

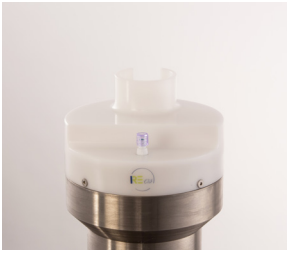
- Loaded activity: 0.5 - 1.5 Ci (18,5GBq - 55,5GBq)
- Volumic activity for 1 Ci generator:
  - ✓ without concentration 9 mCi/ml (370 MBq/ml)
  - ✓ with concentration > 750 mCi/ml (28 GBq/ml) for a final volume of 1 ml
- Adjustable volume of concentrated solution from 1 to 5 ml
- ^{188}W breakthrough < 10^{-6}
- > 99% ^{188}Re in the form of $^{188}ReO_4^-$

Design minimizing risks of mistakes

- Pre-run test
- Monitoring with a real time display of process through graphic interface
- Device requires utility commonly available in hospitals

Easier and complete installation

- Faster processing time: after elution, the concentration process takes an additionnal 10 minutes
- One single kit for both elution and concentration (single use)
- Plug-in cassette
- Full traceability of the operations: no need to install additional software
- Automatic reports to support batch release
- Maintenance & assistance via web interface



CLINICAL PERSPECTIVES

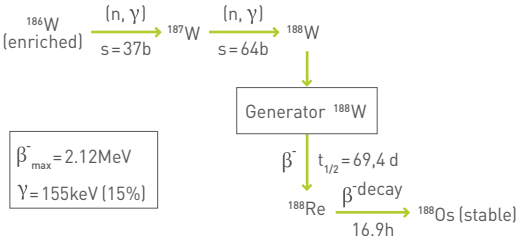
Non exhaustive list of preparation and clinical use of ^{188}Re radiolabelled compounds*:

- ^{188}Re-DMSA (dimercaptosuccinic acid) for the Treatment of Medullary Carcinoma
- ^{188}Re-HEDP : Bone Pain Palliation Agents
- ^{188}Re Labeled Antibodies
- ^{188}Re Labeled Peptides
- ^{188}Re-lipiodol for Hepatic Carcinoma (HCC)
- ^{188}Re Patches for Therapy of Skin Cancer
- ^{188}Re for Intravascular Radionuclide Therapy (IVRNT)
- ^{188}Re-colloids for Radiosynovectomy

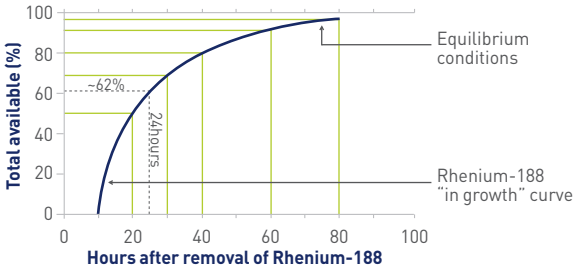
PRODUCT SPECIFICATIONS

PHYSICAL FACTS

DECAY SCHEME FOR ^{188}Re PRODUCTION



ELUTION YIELDS OF ^{188}Re IN THE ^{188}W/^{188}Re GENERATOR



CHEMICAL FACTS

Generator
Chemical Form: Na $^{188}ReO_4$
Eluent: 0.9 % NaCl
Elution Volume: from 1 to 5 ml
Activity: 0.5 - 1.5 Ci (18,5GBq - 55,5GBq)
Generator Yield: 90-95 % at production date
Shelf life: 6 months after 1st elution

Eluate
Appearance: clear and colorless solution, precipitate free

Specific Activity: No-carrier-added
Radionuclide purity:
^{188}W breakthrough $\leq 1.10^{-6}$
^{191}Os/^{188}Re $\leq 1\ 10^{-4}$
^{192}Ir/^{188}Re $\leq 1\ 10^{-4}$
Radiochemical purity:
99% ^{188}Re in the form of $^{188}ReO_4^-$
Chemical Purity:
Al, Fe, W $\leq$ 0.1 ppm individually
Bacterial endotoxins :
$\leq$ 1,75 UE/ml

PRACTICAL FACTS

35mm Tungsten shielding
Calibration: at shipping date / time

Delivery: 3 months after order
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*M.R.A. Pillai, *Curr Radiopharm*. 2012 Jul;5(3):228-43