



US 20120065365A1

(19) **United States**

(12) **Patent Application Publication**  
**Chen et al.**

(10) **Pub. No.: US 2012/0065365 A1**  
(43) **Pub. Date: Mar. 15, 2012**

(54) **STABLE RADIOPHARMACEUTICAL  
COMPOSITIONS AND METHODS FOR  
THEIR PREPARATION**

(75) Inventors: **Jianqing Chen**, Bordentown, NJ  
(US); **Karen E. Linder**, Kingston,  
NJ (US); **Edmund R. Marinelli**,  
Lawrenceville, NJ (US); **Edmund  
Metcalf**, Kingston, NJ (US);  
**Adrian D. Nunn**, Lambertville, NJ  
(US); **Rolf E. Swenson**, Princeton,  
NJ (US); **Michael F. Tweedle**,  
Princeton, NJ (US)

(73) Assignee: **BRACCO IMAGING S.P.A.**,  
Milan (IT)

(21) Appl. No.: **13/280,485**

(22) Filed: **Oct. 25, 2011**

**Related U.S. Application Data**

(63) Continuation of application No. 10/566,112, filed on  
Jul. 9, 2007, filed as application No. PCT/US04/23930  
on Jul. 23, 2004.

(60) Provisional application No. 60/489,850, filed on Jul.  
24, 2003.

**Publication Classification**

(51) **Int. Cl.**

**C07K 7/06** (2006.01)  
**C07K 14/655** (2006.01)  
**C07K 7/18** (2006.01)  
**C07K 14/595** (2006.01)  
**C07K 7/23** (2006.01)  
**C07K 14/68** (2006.01)  
**C07K 7/16** (2006.01)  
**C07K 14/62** (2006.01)  
**C07K 14/545** (2006.01)

(52) **U.S. Cl.** ..... **530/303**; 530/327; 530/315; 530/311;  
530/314; 530/351; 530/399; 530/312; 530/309

(57) **ABSTRACT**

Stabilized radiopharmaceutical formulations are disclosed. Methods of making and using stabilized radiopharmaceutical formulations are also disclosed. The invention relates to stabilizers that improve the radiostability of radiotherapeutic and radiodiagnostic compounds and formulations containing them. In particular, it relates to stabilizers useful in the preparation and stabilization of targeted radiodiagnostic and radiotherapeutic compounds, and, in a preferred embodiment, to the preparation and stabilization of radiodiagnostic and radiotherapeutic compounds that are targeted to the Gastrin Releasing Peptide Receptor (GRP-Receptor).



FIG. 2

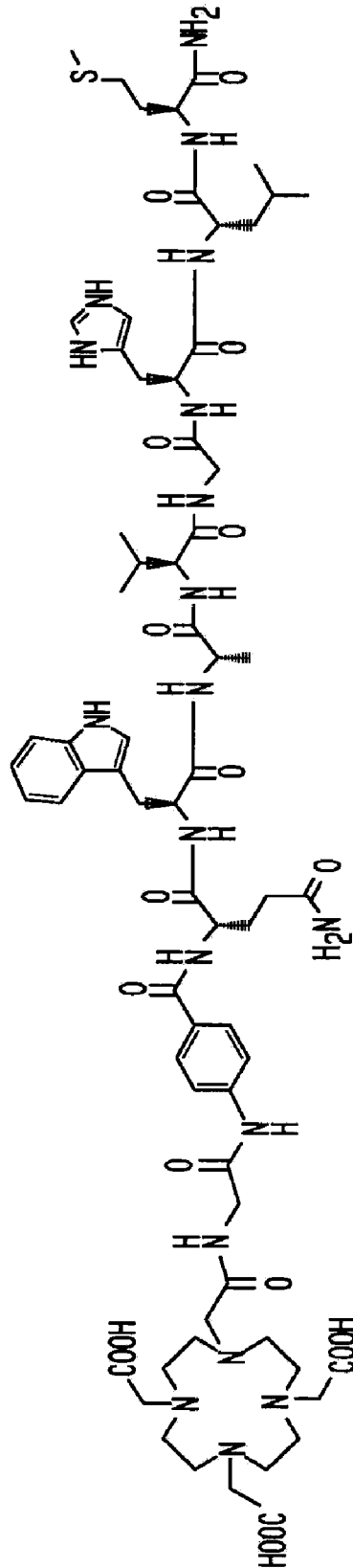


FIG. 3A

ADC1 A, ADC CHANNEL A(H:\HPLCDA~1\2002\DEC~1.200\12-4-02\B2372000.D)

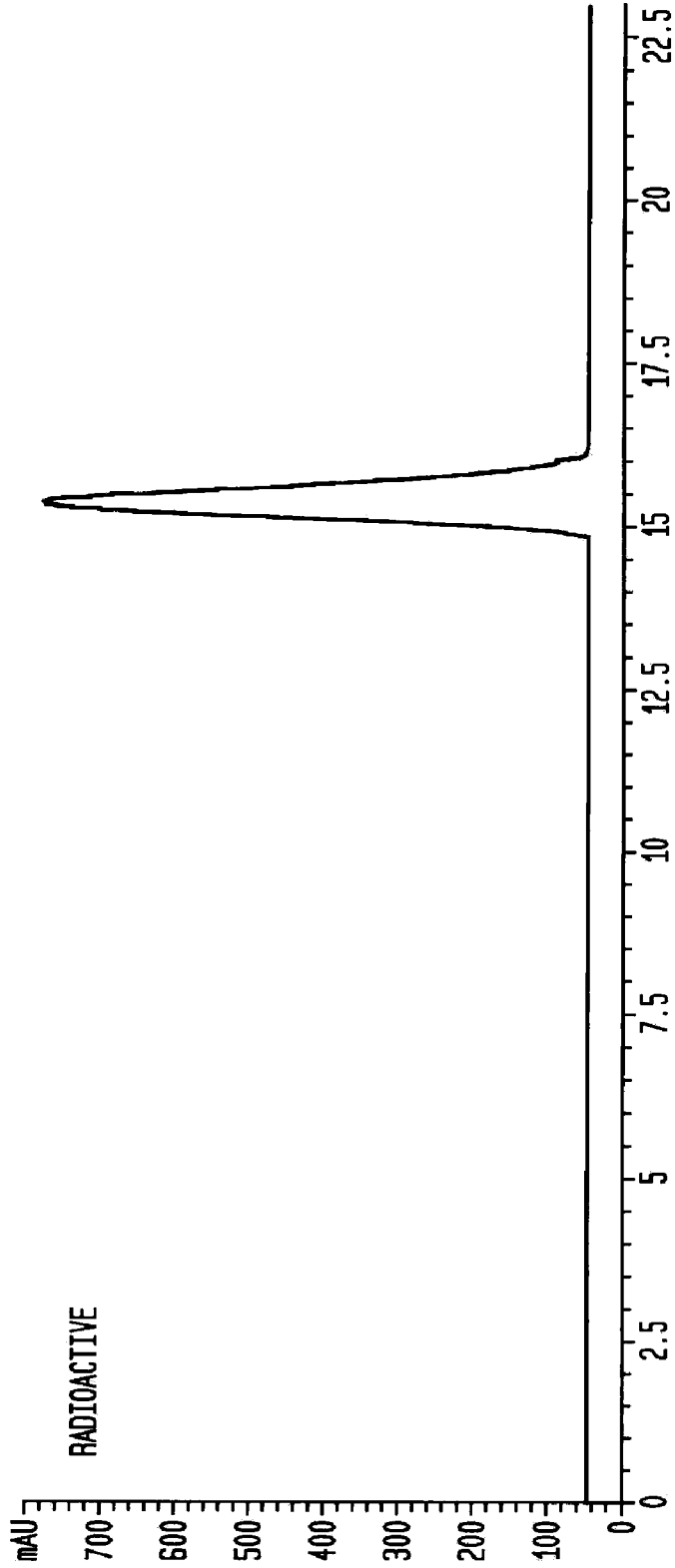
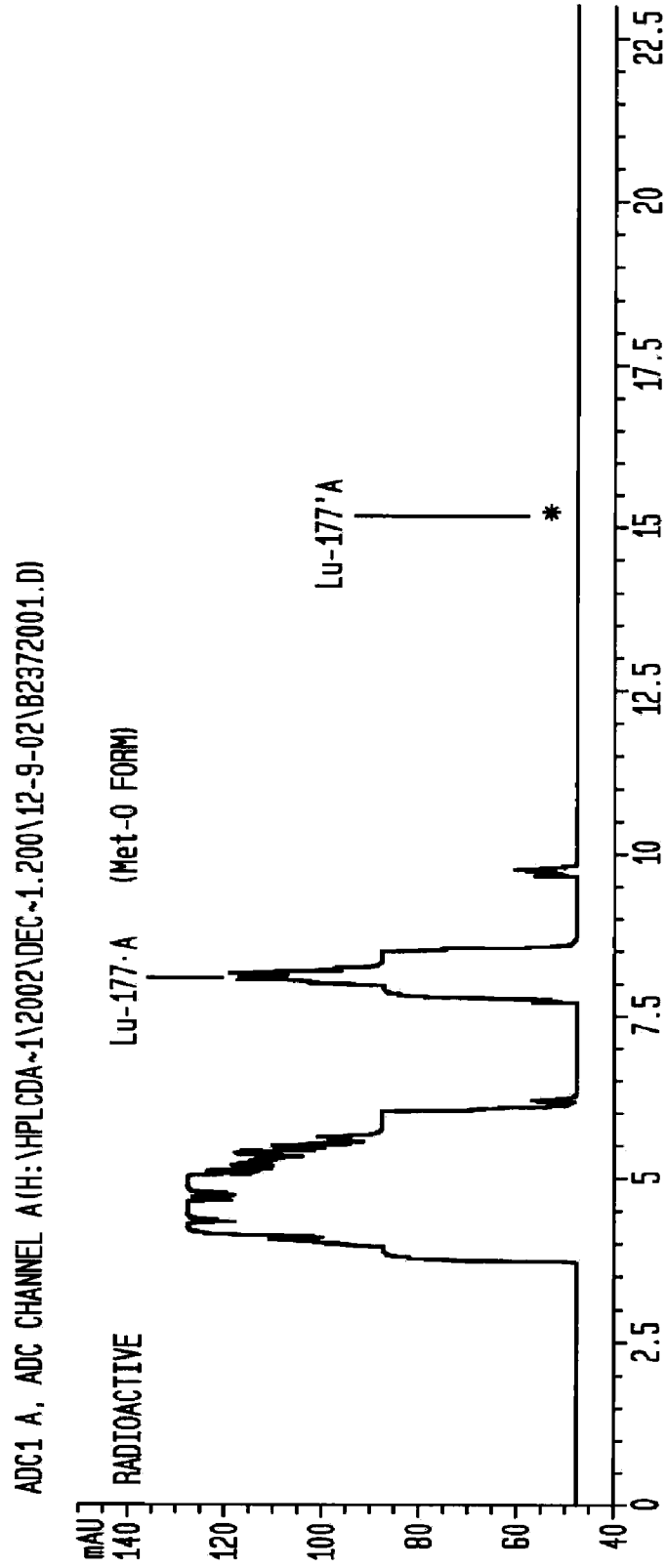


FIG. 3B



# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.