



US005656299A

United States Patent [19]

[11] Patent Number: **5,656,299**

Kino et al.

[45] Date of Patent: **Aug. 12, 1997**

[54] **SUSTAINED RELEASE MICROSPHERE PREPARATION CONTAINING ANTIPSYCHOTIC DRUG AND PRODUCTION PROCESS THEREOF**

4,389,330	6/1983	Tice et al.	427/213.36
4,940,588	7/1990	Sparks et al.	424/490
4,994,281	2/1991	Maranishi et al.	424/497
5,008,114	4/1991	Lovrecich	424/484

[75] Inventors: **Shigemi Kino; Tomonori Osajima; Hiroaki Mizuta**, all of Fukuoka, Japan

OTHER PUBLICATIONS

Microencapsulation And Dissolution Properties Of A Neuroleptic In A Biodegradable Polymer, Poly (d,l-lactide), *Journal of Pharmaceutical Sciences*, by Suzuki and Price, vol. 74, No.1, 21-24, Jan. 1985.

[73] Assignee: **Yoshitomi Pharmaceutical Industries, Ltd.**, Osaka, Japan

Chemical Abstracts, vol. 117, No. 24, 14 Dec. 1992.

[21] Appl. No.: **443,021**

Chemical Abstracts, vol. 102, No. 18, 6 May 1985.

[22] Filed: **May 17, 1995**

Chemical Abstracts, vol. 106, No. 6, 9 Feb. 1987.

International Search Report.

Related U.S. Application Data

[63] Continuation-in-part of PCI/JP93/01673, Nov. 15, 1993.

[30] Foreign Application Priority Data

Nov. 17, 1992 [JP] Japan 4-332441

[51] Int. Cl.⁶ **A61K 9/50**

[52] U.S. Cl. **424/489; 424/490; 424/497; 424/426**

[58] Field of Search **424/426, 490, 424/497, 489, 529, 530; 514/938**

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Assistant Examiner—**Sharon Howard**

Attorney, Agent, or Firm—**Sughrue, Mion, Zinn, Macpeak & Seas**

ABSTRACT

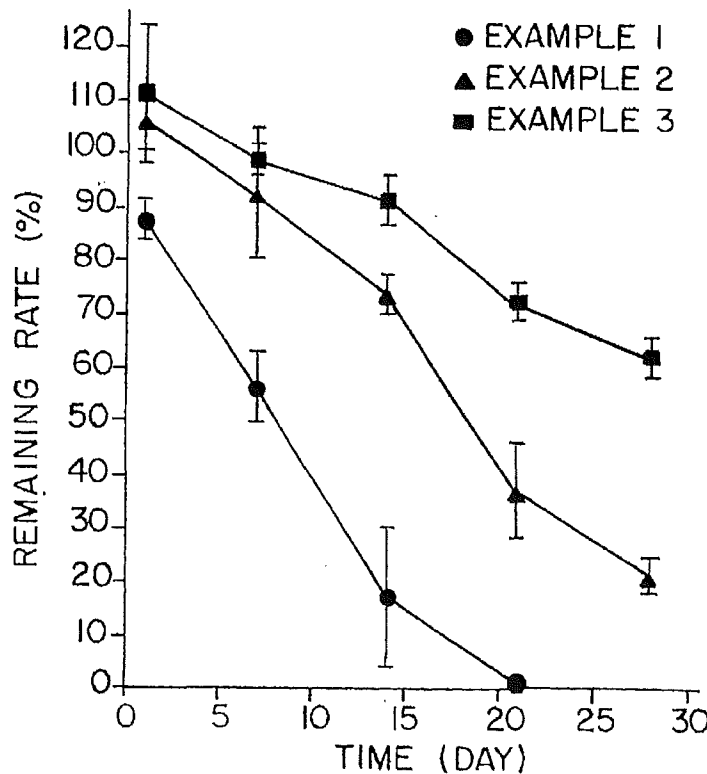
[57] A sustained release microsphere preparation which is produced by including a hydrophobic antipsychotic drug such as bromperidol, haloperidol or the like into a base composed of a high molecular weight polymer having in vivo histocompatibility such as polylactic acid, poly(lactic-co-glycolic)acid or the like, and a process for the production thereof.

[56] References Cited

U.S. PATENT DOCUMENTS

3,773,919 11/1973 Boswell et al. 424/19

4 Claims, 4 Drawing Sheets



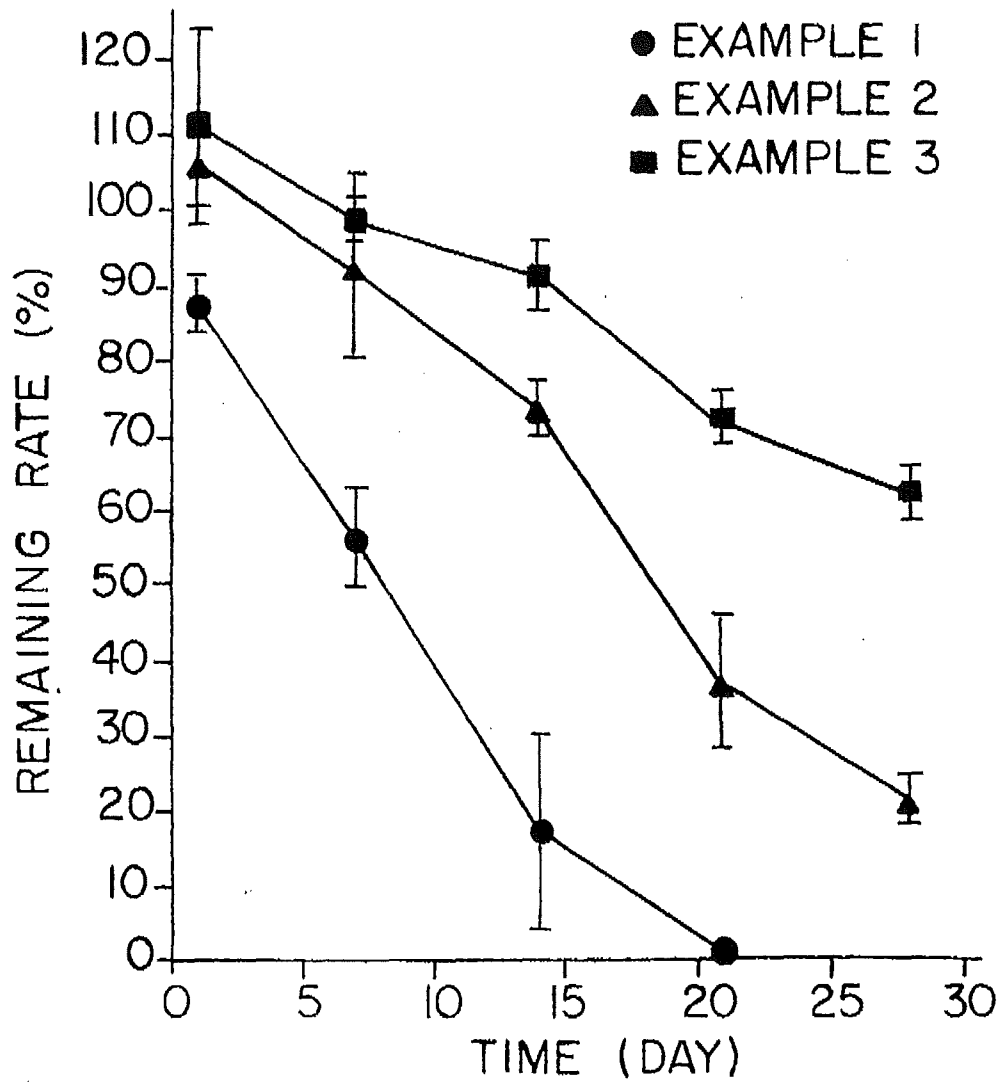


FIG. 1

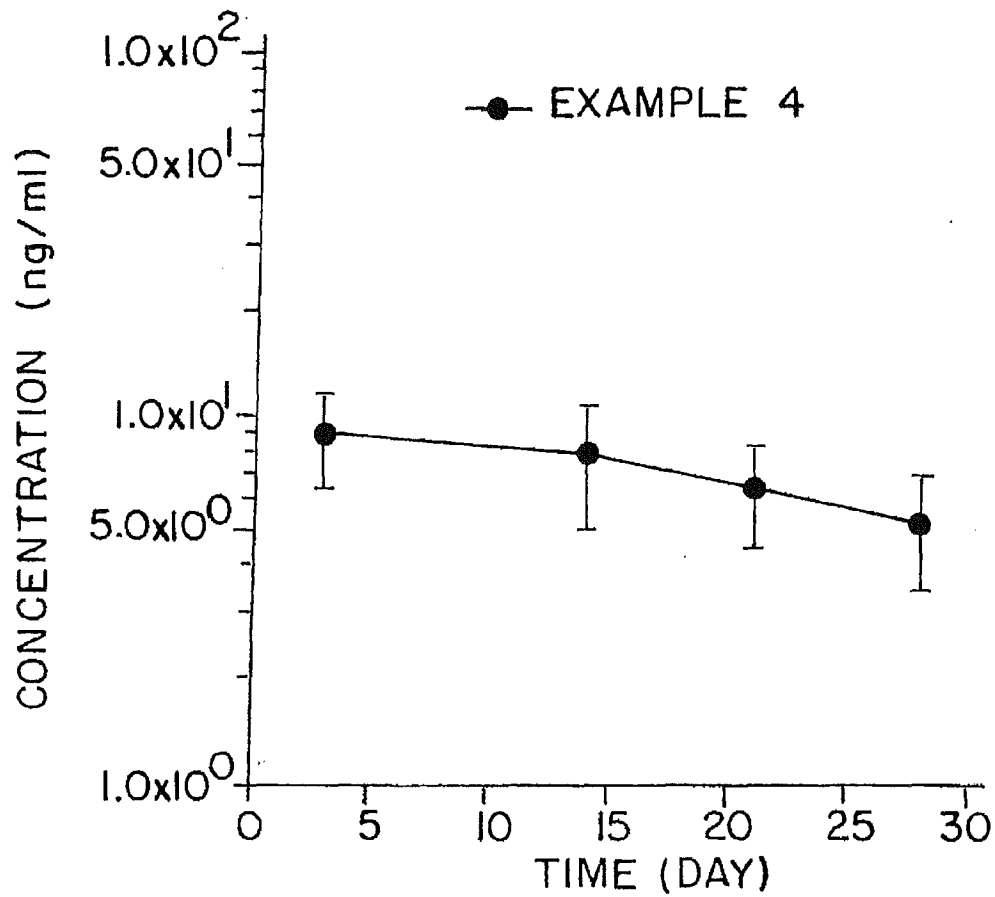


FIG. 2

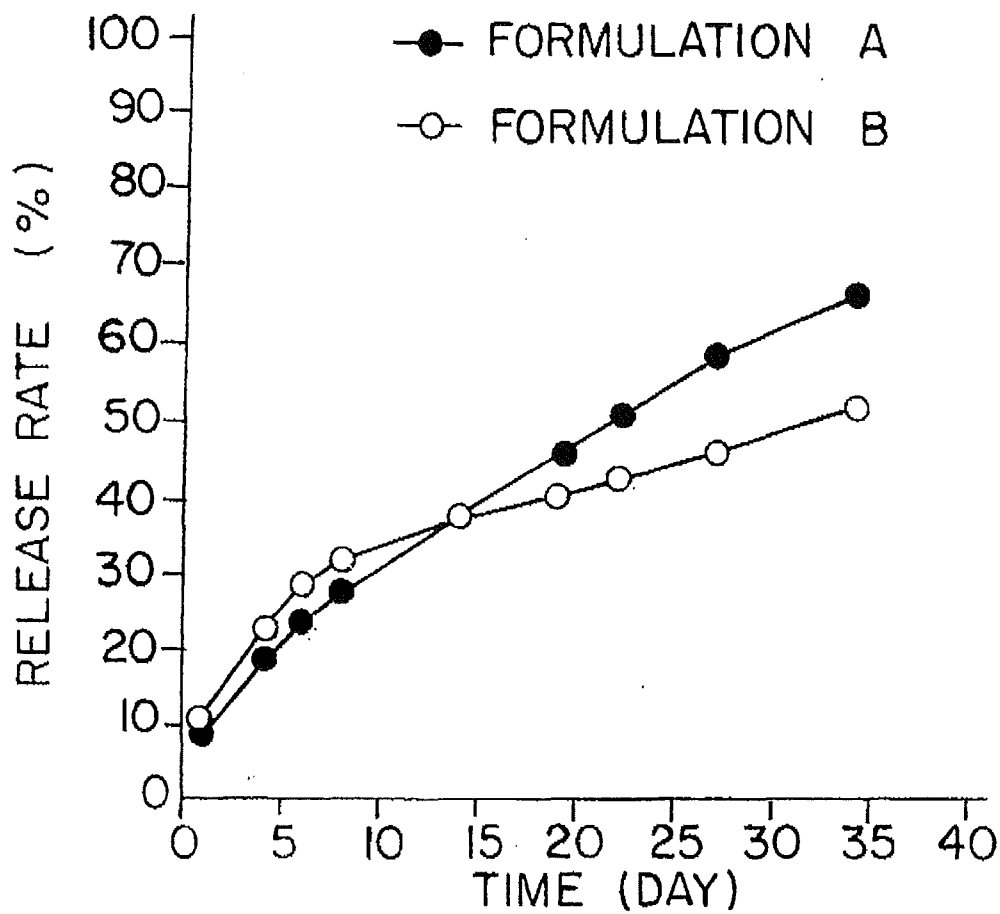


FIG. 3

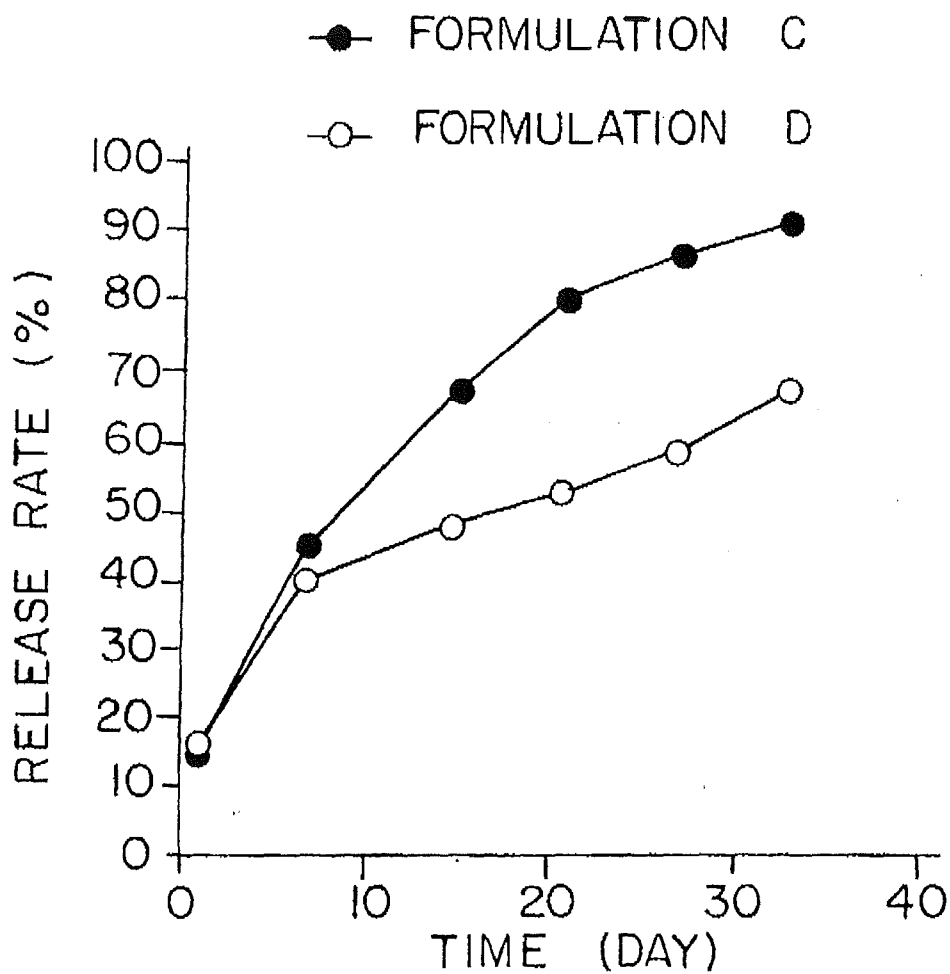


FIG. 4

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