

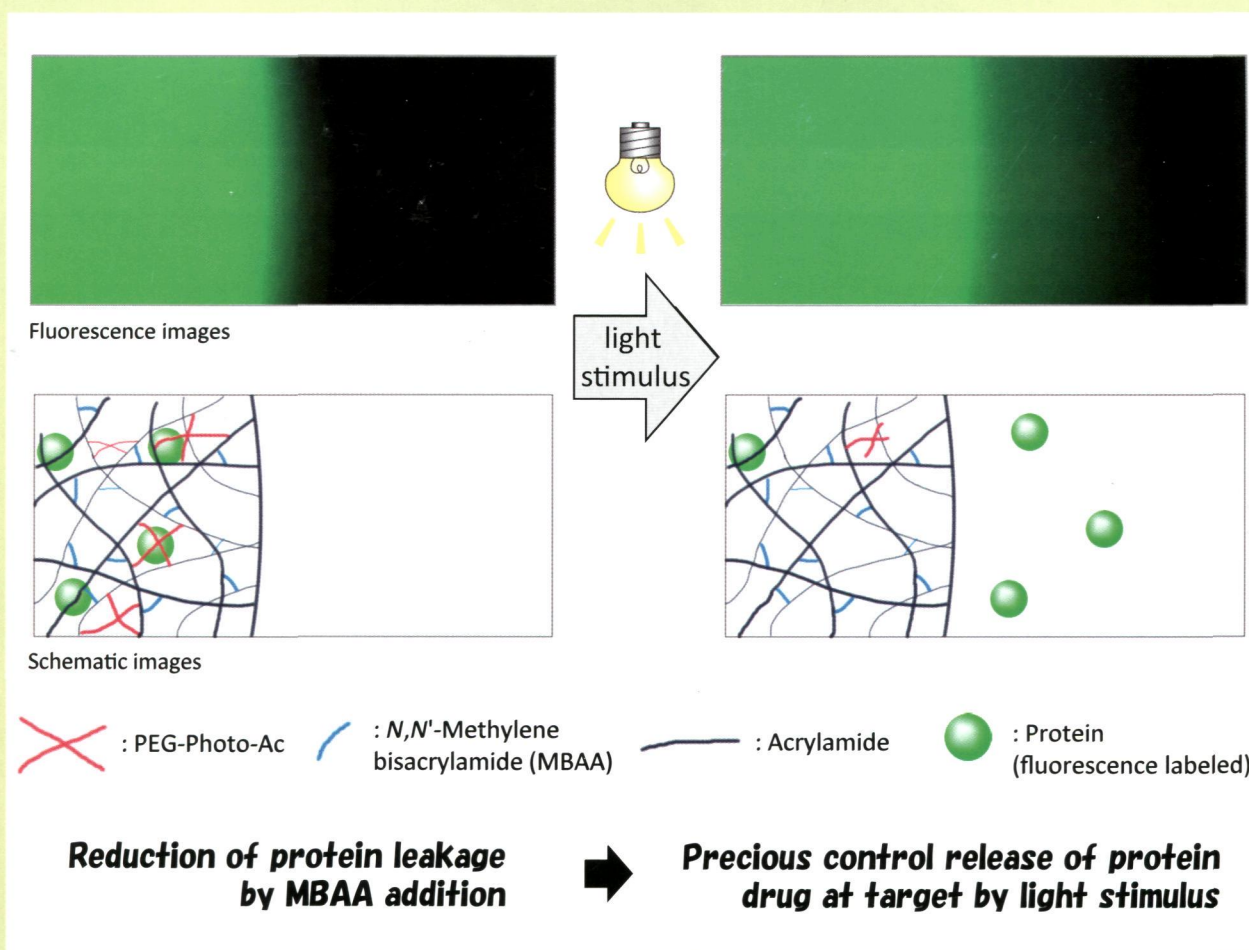
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Reduction of Molecular Leaching from a Gel Matrix for the Precisely Controlled Release of Encapsulated Molecules by Light Stimulus

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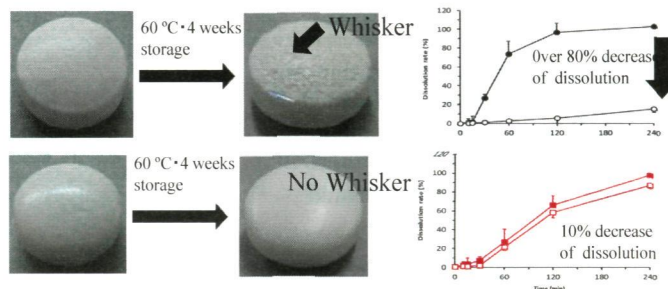
<http://cpb.pharm.or.jp>

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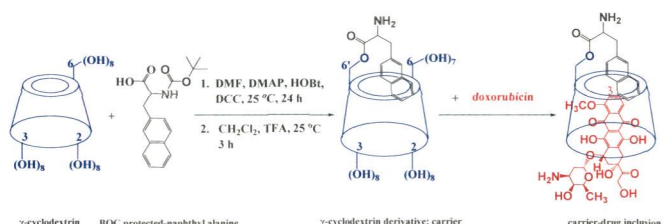
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Synthesis and Inclusion Study of a Novel γ -Cyclodextrin Derivative as a Potential Thermo-Sensitive Carrier for Doxorubicin

D. Xu, L. Wang, D. Gourevich, E. Kabha, F. Arditti, M. Athamna, S. Cochran, A. Melzer, and J. M. Gnaani



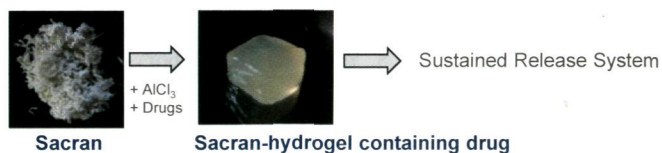
A γ -Cyclodextrin based carrier for doxorubicin encapsulation was prepared. The inclusion is highly stable under physiological temperature and acidic environments. The encapsulated drug is, however, slowly released under hyperthermic conditions.

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Potential Use of a Megamolecular Polysaccharide Sacran as a Hydrogel-Based Sustained Release System

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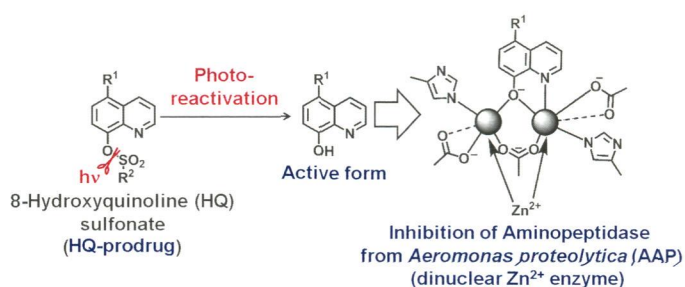
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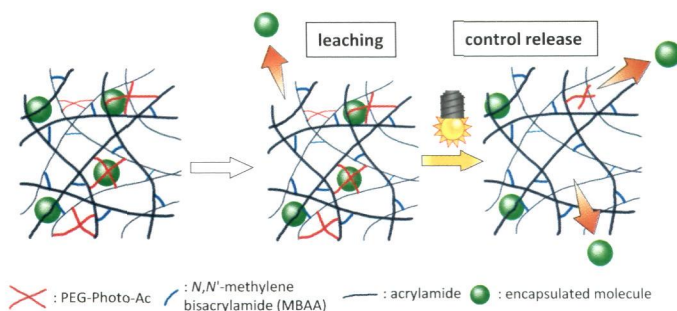
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Reduction of Molecular Leaching from a Gel Matrix for the Precisely Controlled Release of Encapsulated Molecules by Light Stimulus

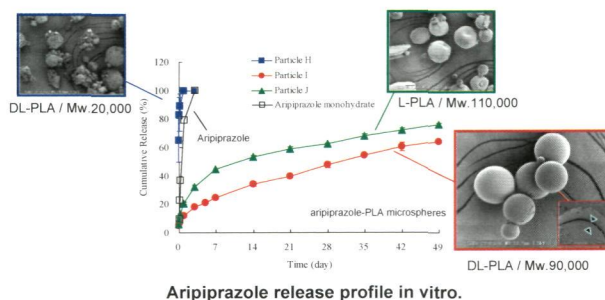
T. Amamoto, T. Santa, and M. Kato



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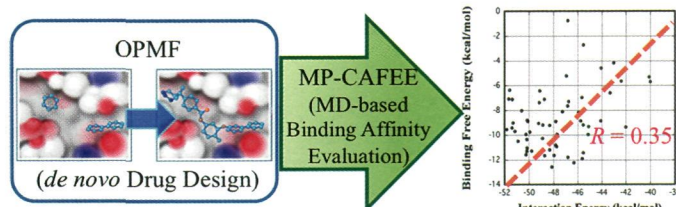
S. Hiraoka, S. Uchida, and N. Namiki



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Molecular Dynamics Simulation-Based Evaluation of the Binding Free Energies of Computationally Designed Drug Candidates: Importance of the Dynamical Effects

T. Yamashita, A. Ueda, T. Mitsui, A. Tomonaga, S. Matsumoto, T. Kodama, and H. Fujitani

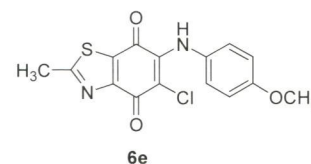
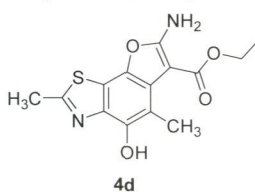


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Synthesis of Benzofuro[6,7-d]thiazoles, Benzofuro[7,6-d]thiazoles and 6-Arylaminothiazolo[4,5-b]pyridin-2(1H)-ones as Antifungal Agent

C.-K. Ryu, J.-H. Nho, G. Jin, S. Y. Oh, and S. J. Choi

Benzofuro[6,7-d]thiazoles, benzofuro[7,6-d]thiazoles and 6-arylaminothiazolo[4,5-b]pyridin-2(1H)-ones were synthesized and tested for antifungal activity against pathogenic strains of fungi. Many of these tested compounds exhibited potent antifungal activity

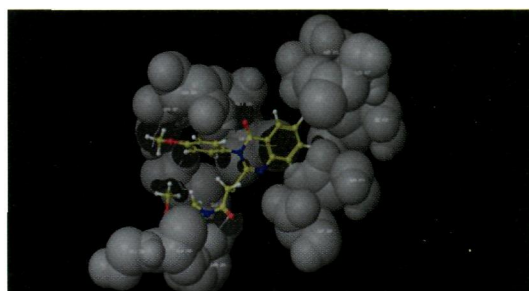


MIC 1.6~6.3 μg/mL

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Molecular Modeling Studies and Synthesis of Novel Methyl 2-(2-(4-Oxo-3-aryl-3,4-dihydroquinazolin-2-ylthio)acetamido)alkanoates with Potential Anti-cancer Activity as Inhibitors for Methionine Synthase

I. M. Elfekki, W. F. M. Hassan, H. E. A. E. Elshihawy, I. A. I. Ali, and E. H. M. Eltamany

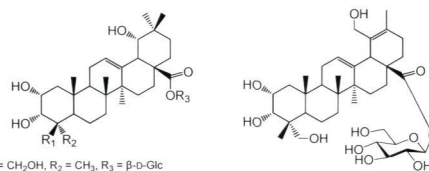


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Hepatoprotective Triterpenoid Saponins from *Callicarpa nudiflora*

B. Huang, H.-Z. Fu, W.-K. Chen, Y.-H. Luo, and S.-C. Ma

Four new triterpenoid saponins (1–4), together with three known compounds (5–7), were isolated from the leaves of *Callicarpa nudiflora* Hook. Among them, compounds 1–3 showed pronounced hepatoprotective activities against D-galactosamine-induced toxicity in WB-F344 rat hepatic epithelial stem-like cells.

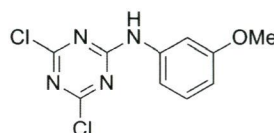


- 1 $R_1 = \text{CH}_2\text{OH}$, $R_2 = \text{CH}_3$, $R_3 = \beta\text{-D-Glc}$
 2 $R_1 = \text{CH}_3$, $R_2 = \text{CH}_2\text{OH}$, $R_3 = \beta\text{-D-Xyl-(1}\rightarrow\text{2)}\beta\text{-D-Glc}$
 3 $R_1 = R_2 = \text{CH}_3$, $R_3 = \beta\text{-D-Xyl-(1}\rightarrow\text{2)}\beta\text{-D-Glc}$

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Synthesis and Structure–Activity Relationship Study of Triazine-Based Inhibitors of the DNA Binding of NF- κ B

S. Fujii, T. Kobayashi, A. Nakatsu, H. Miyazawa, and H. Kagechika



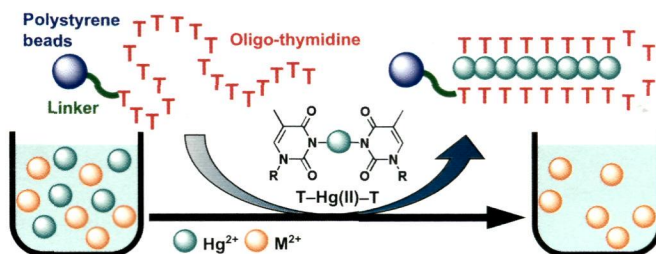
SAR study of triazine-based NK- κ B inhibitor

pp. 700–708

Notes

Hg²⁺-Trapping Beads: Hg²⁺-Specific Recognition through Thymine–Hg(II)–Thymine Base Pairing

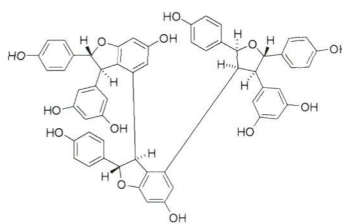
M. Kuriyama, K. Haruta, T. Dairaku, T. Kawamura, S. Kikkawa, K. Inamoto, H. Tsukamoto, Y. Kondo, H. Torigoe, I. Okamoto, A. Ono, E. H. Morita, and Y. Tanaka



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Kobophenol A Inhibits Sodium Nitroprusside-Induced Cardiac H9c2 Cell Death through Suppressing Activation of JNK and Preserving Mitochondrial Anti-apoptotic Bcl-2 and Mcl-1

S. R. Lee, J. H. Kwak, S. J. Noh, J. R. Pronto, K. S. Ko, B. D. Rhee, Z. Xu, N. Kim, and J. Han

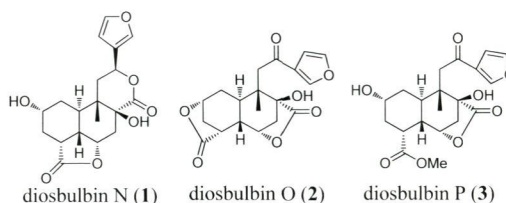


Kobophenol A ($\text{C}_{20}\text{H}_{14}\text{O}_{13}$), purified from *Caragana sinica*, has inhibitory effect on sodium nitroprusside-induced activation of JNK and p38 MAP kinase, and thereby provide a protective potential against sodium nitroprusside-mediated cardiac H9c2 cell death.

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New Norclerodane Diterpenoids from the Tubers of *Dioscorea bulbifera*

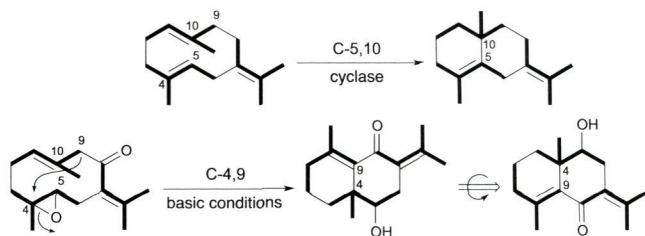
Y. Tang, Y. Xue, L. Zhou, J. Zhang, G. Yao, Z. Luo, G. Du, and Y. Zhang



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Transannular Cyclization of (4*S*,5*S*)-Germacrone-4,5-epoxide under Basic Conditions to Yield Eudesmane-Type Sesquiterpenes

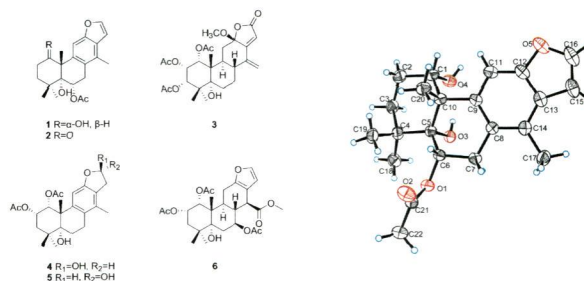
M. Kuroyanagi, O. Shirota, and S. Sekita



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New Cassane-Type Diterpenoids from *Caesalpinia bonduc*

L. Wu, X. Wang, S. Shan, J. Luo, and L. Kong



pp. 729–733

About the cover: We developed a general method for controlling molecular functions using a photodegradable hydrogel; gel-encapsulated molecules in such materials are capable of release and activation by light stimulus. The addition of *N,N'*-methylenebis(acrylamide) (MBAA) to the gel inhibited molecular leaching from the gel. We succeeded in preparing a gel that halved the leaching of encapsulated molecules, while the leaching of large molecules, such as albumin (66 kDa) and ferritin (450 kDa) was at negligible levels, or disappeared. Images of gel containing fluorescence labeled protein are shown. The left side is images of the gel before irradiation and right side is images of the gel after irradiation. The gel will be applicable in optical activation sensors or drug-delivery systems. See the article by Amamoto *et al.* on page 649 of this issue.