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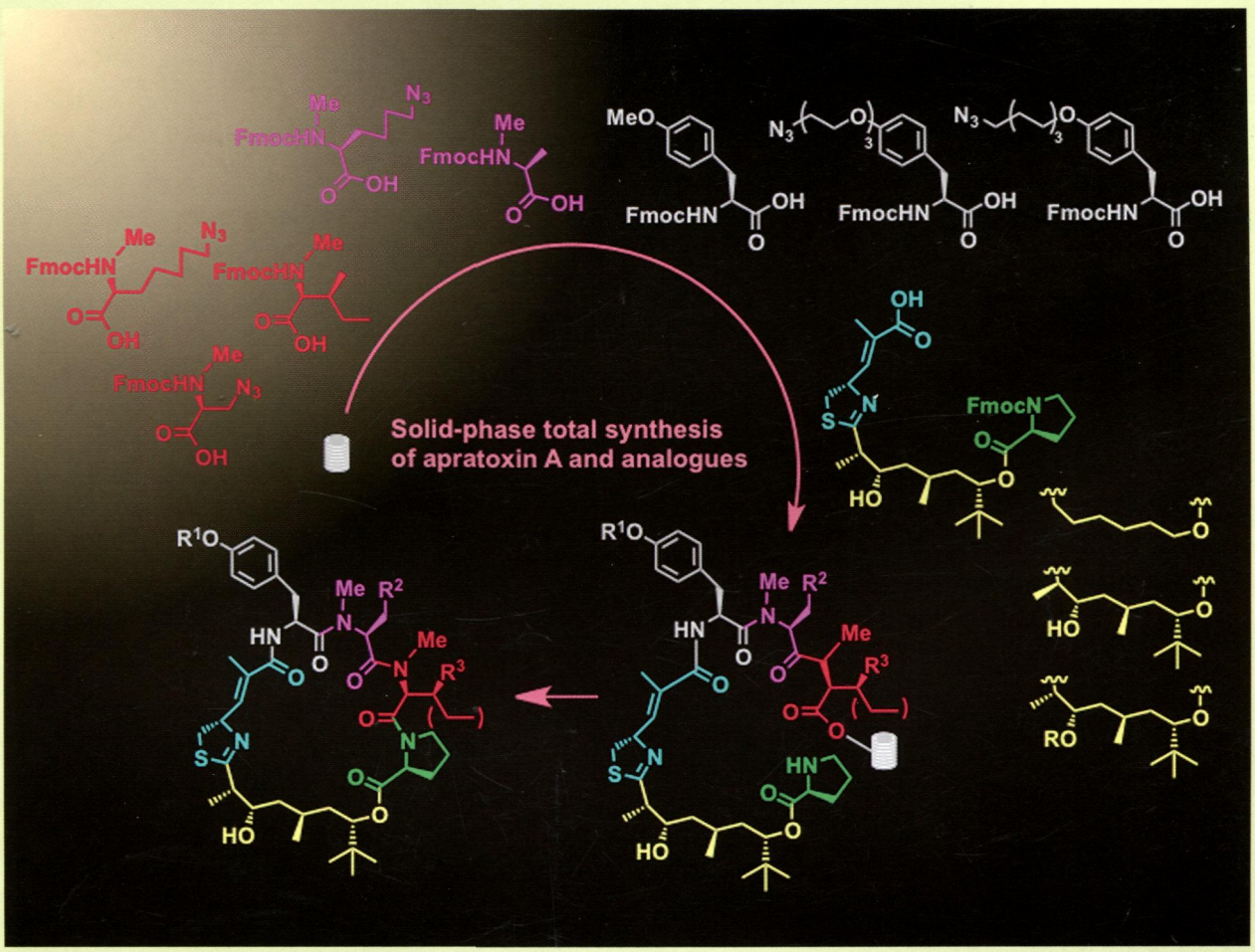

Synthesis of the Biologically Active Natural Product Cyclodepsipeptides Apratoxin A and Its Analogues

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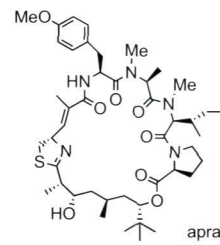
Synthesis of the Biologically Active Natural Product Cyclodepsipeptides Apratoxin A and Its Analogues

T. Doi



apratoxin A

Total syntheses of apratoxin A and its oxazoline analogue have been demonstrated. Solid-phase-assisted synthesis developed was utilized for the synthesis of side-chain-modified analogues of apratoxin A.

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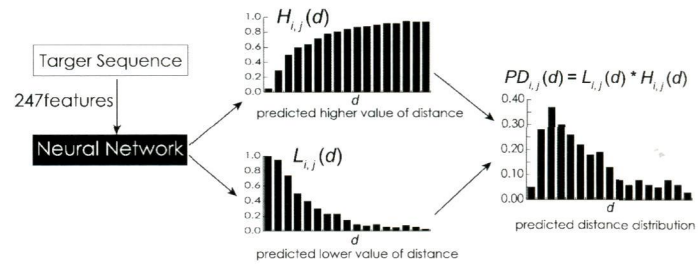
Quality Assessment Methods for 3D Protein Structure Models Based on a Residue–Residue Distance Matrix Prediction

G. Terashi, Y. Nakamura, H. Shimoyama, and M. Takeda-Shitaka



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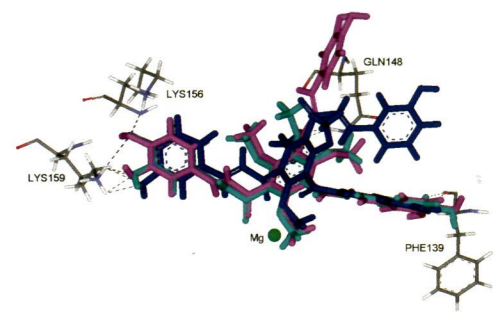

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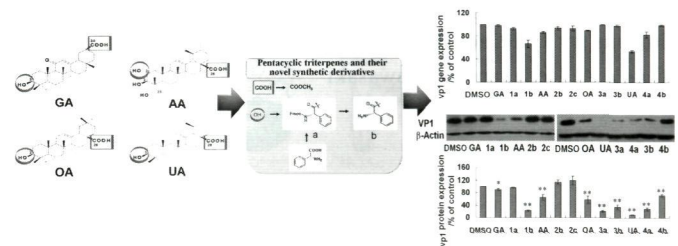

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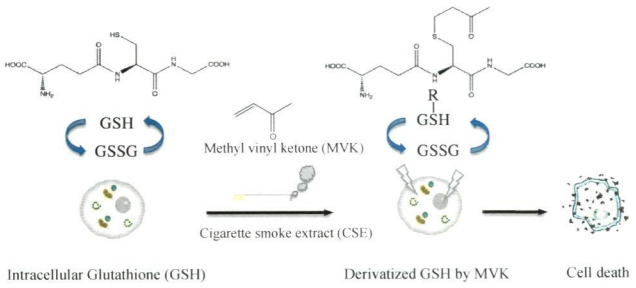

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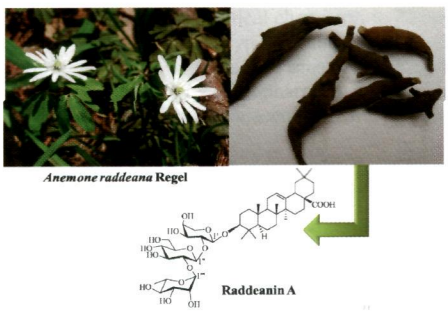

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Stabilizing Effect of β-Cyclodextrin on Limaprost, a PGE_1 Derivative, in Limaprost Alfadex Tablets (Opalmon®) in Highly Humid Conditions

Y. Inoue, N. Sekiya, K. Katayama, S. Narutaki, M. Yamamoto, D. Iohara, F. Hirayama, and K. Uekama

	11-deoxy-Δ¹⁰ (%)				
Storage period (Weeks)	Initial	4	5	8	19
Opalmon® tablet (Commercial product)	0.5	4.5	5.7	—	—
Opalmon® tablet (Moisture resistant formulation)	0.3	1.7	—	2.5	5.0

Opalmon® tablets (moisture resistant formulation) containing β-CD are remarkably stabilized at 30 °C, 75%R.H.

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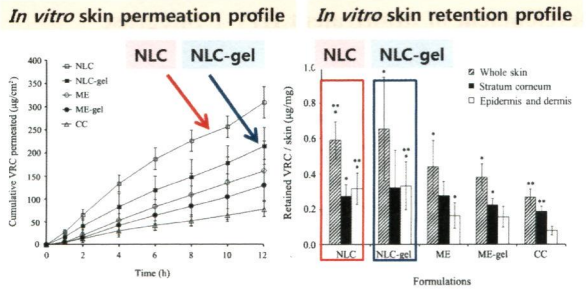
Improved Skin Delivery of Voriconazole with a Nanostructured Lipid Carrier-Based Hydrogel Formulation

S. H. Song, K. M. Lee, J. B. Kang, S. G. Lee, M. J. Kang, and Y. W. Choi



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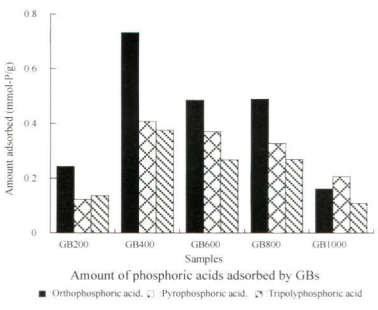

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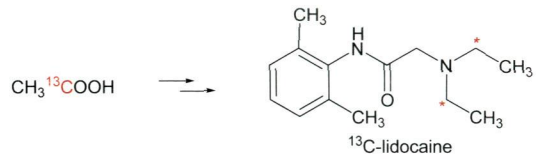

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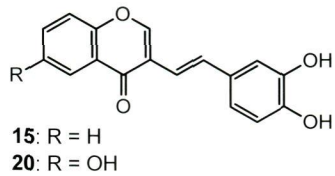
Synthesis and Biological Evaluation of 3-Styrylchromone Derivatives as Free Radical Scavengers and α-Glucosidase Inhibitors
K. Takao, R. Ishikawa, and Y. Sugita



Among the synthesized compounds, compounds **15** and **20** showed both potent DPPH free radical scavenging activity and α-glucosidase inhibitory activity.

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Notes

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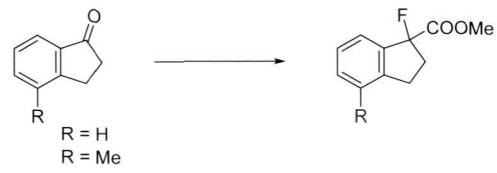

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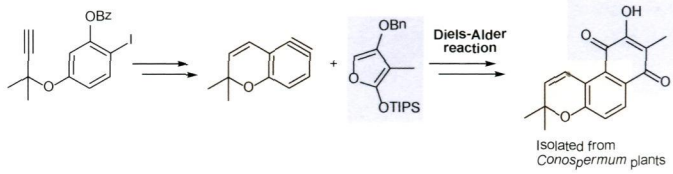
K. Katakawa, A. Sato, M. Iwasaki, T. Horikawa, and T. Kumamoto



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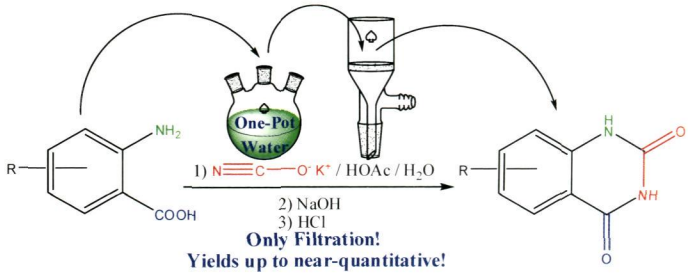
Eco-Efficient One-Pot Synthesis of Quinazoline-2,4(1*H*,3*H*)-diones at Room Temperature in Water
X.-C. Tian, X. Huang, D. Wang, and F. Gao



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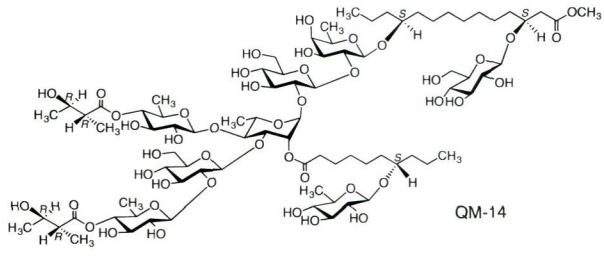
Four New Acylated Glycosidic Acid Methyl Esters Isolated from the Convolvulin Fraction of Seeds of *Quamoclit pennata* after Treatment with Indium(III) Chloride in Methanol

M. Ono, K. Akiyama, K. Yamamoto, T. Mineno, M. Okawa, J. Kinjo, H. Miyashita, H. Yoshimitsu, and T. Nohara



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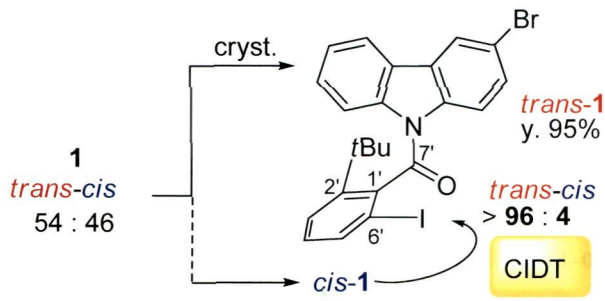
Crystallization-Induced Diastereomeric Transformation of *N*-2′-*t*-Butyl-6′-iodobenzoyl-3-bromocarbazole

S. Kayama, N. Tani, Y. Takahashi, H. Tabata, S. Wakamatsu, T. Oshitari, H. Natsugari, and H. Takahashi



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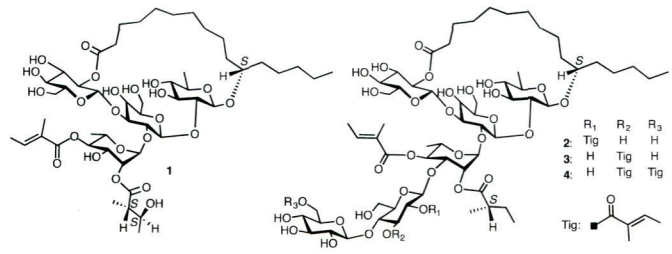
Calysolins X–XIII, Resin Glycosides from *Calystegia soldanella*, and Their Antiviral Activity toward Herpes Simplex Virus

M. Ono, G. Kawakami, A. Takigawa, K. Kabata, M. Okawa, J. Kinjo, K. Yokomizo, H. Yoshimitsu, and T. Nohara



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About the cover: Total synthesis of biologically active cyclodepsipeptide natural product, apratoxin A, comprised of proline, three methylated amino acids (*N*-methylisoleucine, *N*-methylalanine, *O*-methyltyrosine), α,β-unsaturated modified cysteine residue (moCys), and a dihydroxylated fatty acid moiety, 3,7-dihydroxy-2,5,8,8-tetramethylnonanoic acid (Dtena) was achieved in both solution-phase and on solid-phase. Several analogues of apratoxin A possessing an azido group were synthesized utilizing the solid-phase method. Biological evaluation of the synthetic analogues has suggested suitable precursors of molecular probes of apratoxin A. See the review by Doi on page 735 of this issue.