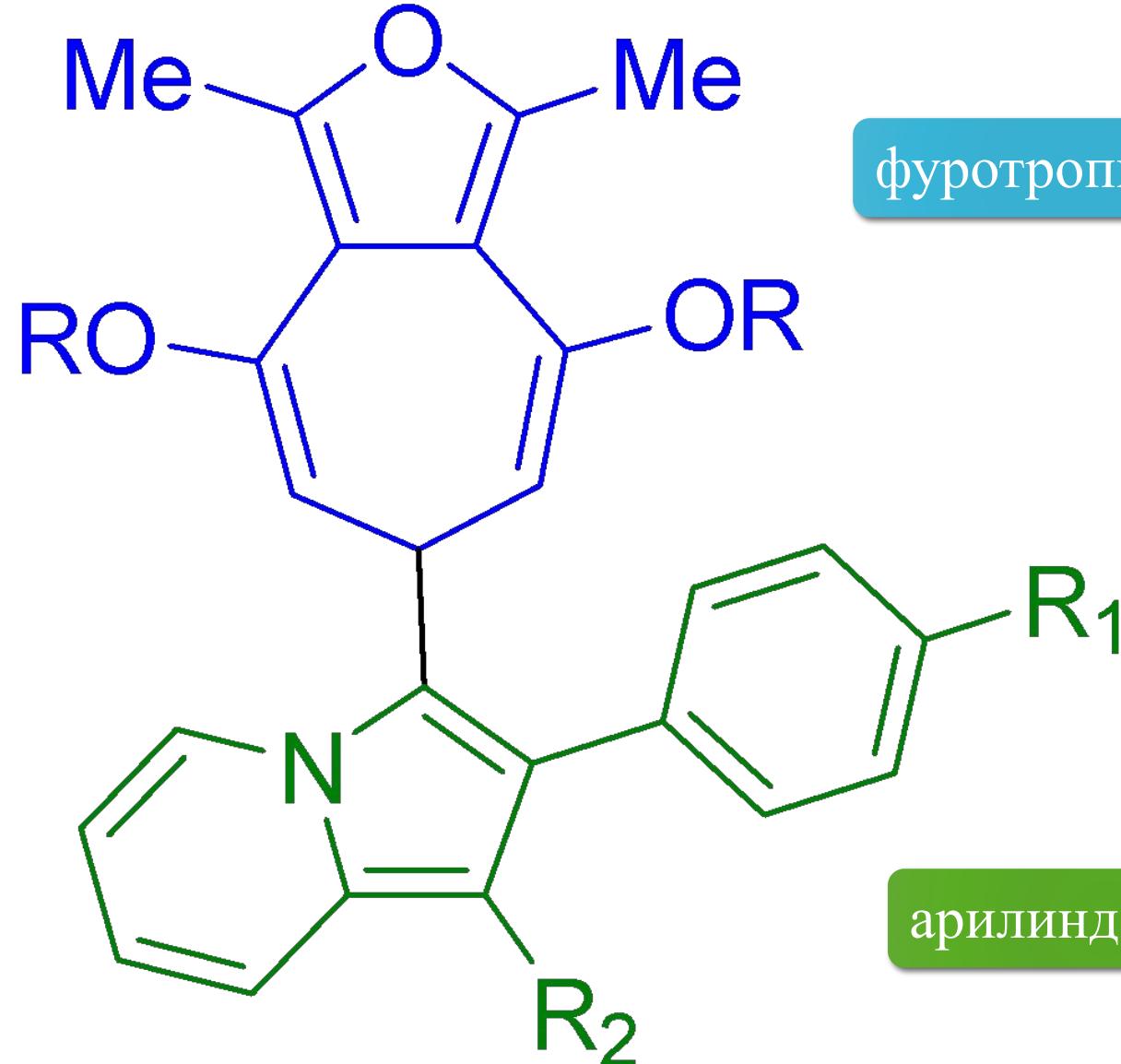


Связь производных индолизина и трополона с медициной

Полфёрова В.

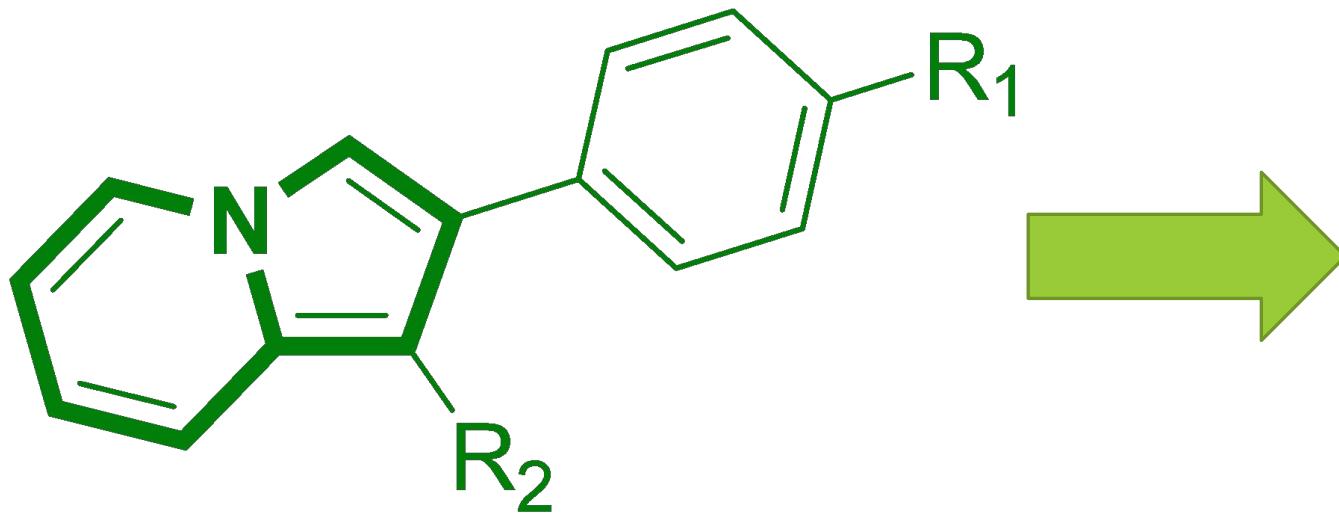
Научный руководитель: Ткачук А. В.

- Целевые продукты **не исследованы** на биологическую активность
- Два структурных элемента
- «Элементы» и их производные **обладают активностью**

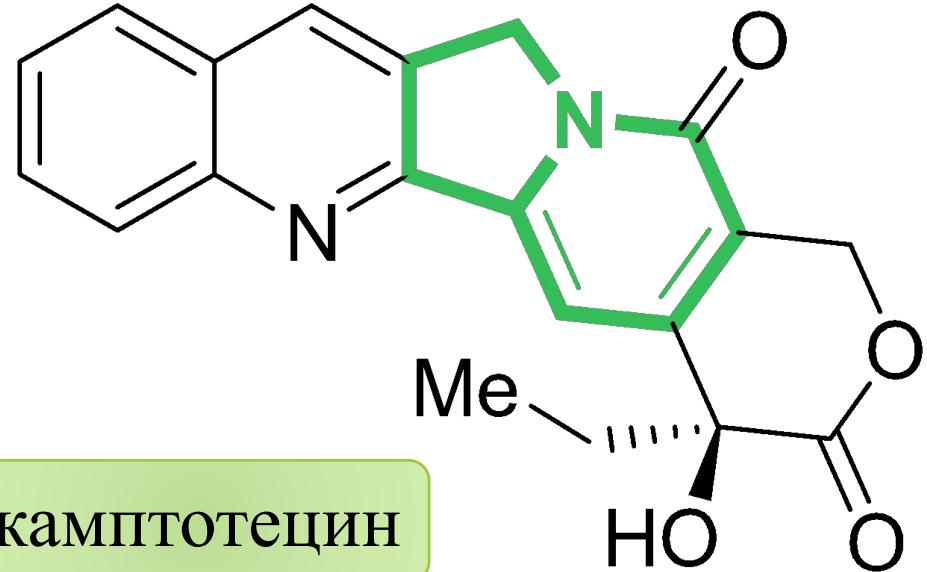


3-(4,8-диалкокси-1,3-диметил-6Н-циклогепта[с]фуран-6-ил)-2-арилметилиндолизины

Индолизиновый фрагмент



- Биологическая активность
- Флуоресценция



камптотецин

Биологическая активность индолизинов

Противораковая

Противотуберкулезная

Противомикробная

Противогрибковая

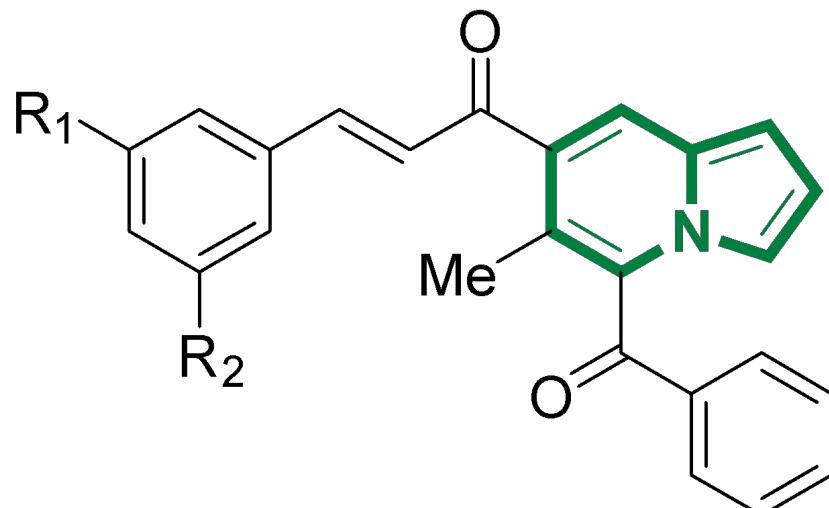
Психические заболевания

Сахарный диабет

Антимутагенность

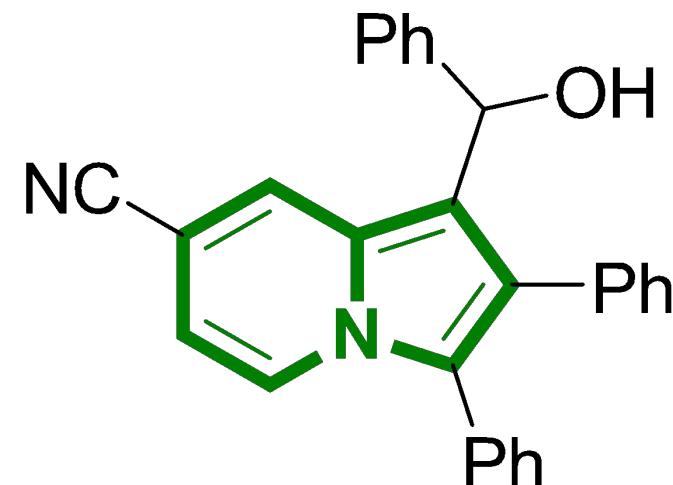
Wall, M.E. Plant antitumor agents I. The isolation and structure of camptothecin, a novel alkaloidal leukemia and tumor inhibitor from *Camptotheca acuminata* / M. E. Wall, M. C. Wani, C. E. Cook, K. H. Palmer, H. T. McPhail, G. A. Sim // Journal of the American Chemical Society – 1966. – V. 88. – P. 3888-3890.

Противораковая активность



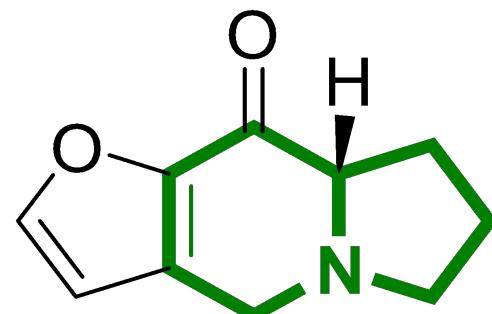
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Противотуберкулезная активность



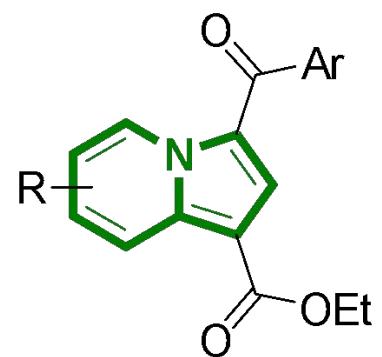
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Антимутагенная активность

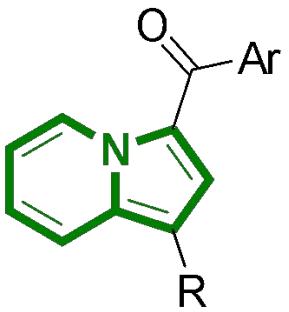


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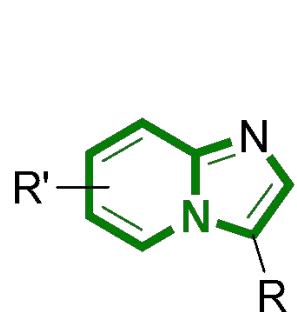
Психические заболевания



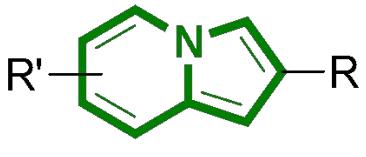
Класс А



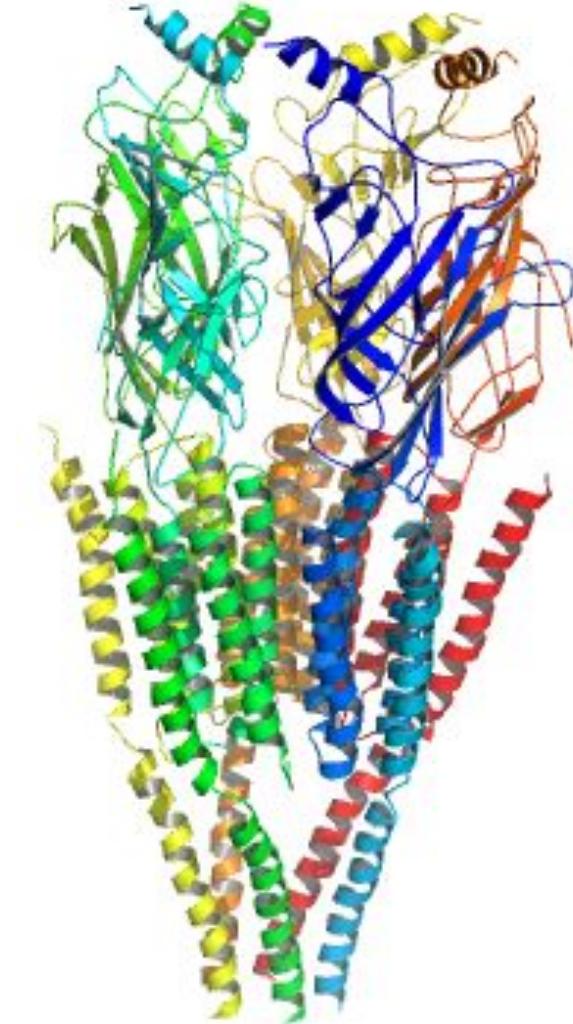
Класс В



Класс С



Класс D



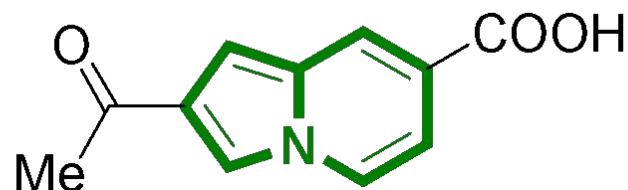
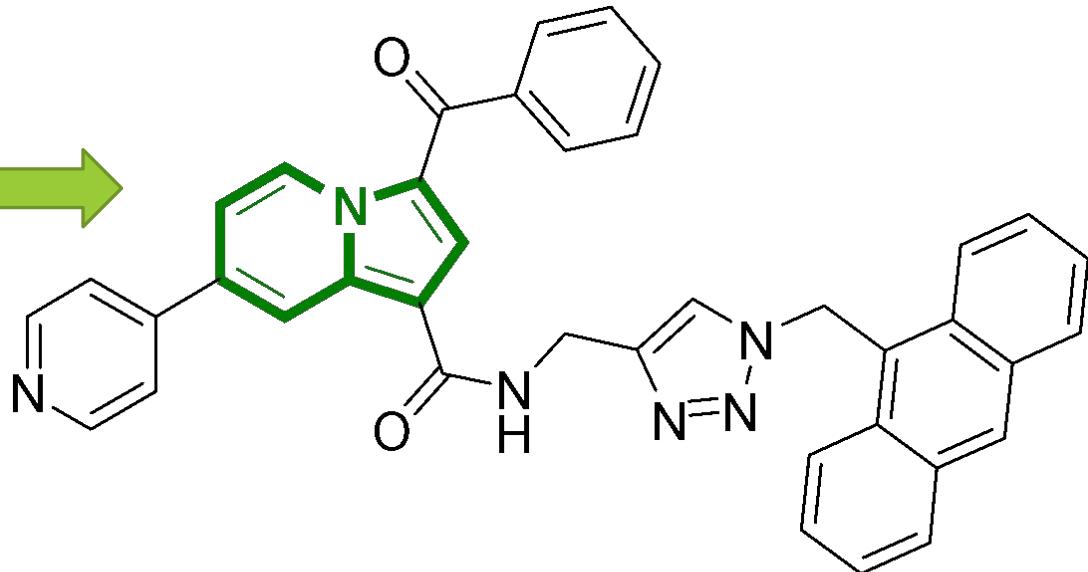
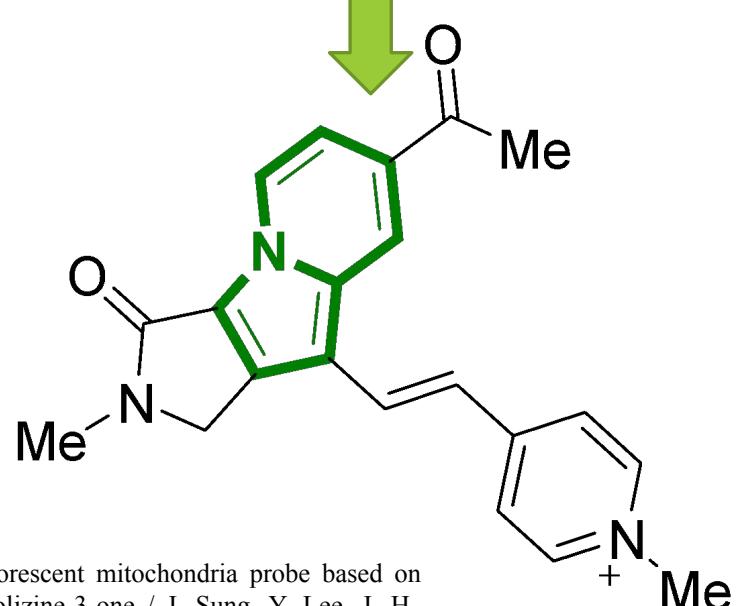
Визуализация никотинового
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Xue, Y. Synthesis and Biological Activities of Indolizine derivatives as Alpha-7 nAChR Agonists / Y. Xue, J. Tang, X. Ma, Q. Li, B. Xie, Y. Hao, H. Jin, K. Wang, G. Zhang, L. Zhang // European Journal of Medicinal Chemistry – 2016. – V.115. – P. 94-108.

Способность флуоресцировать

Индикатор pH

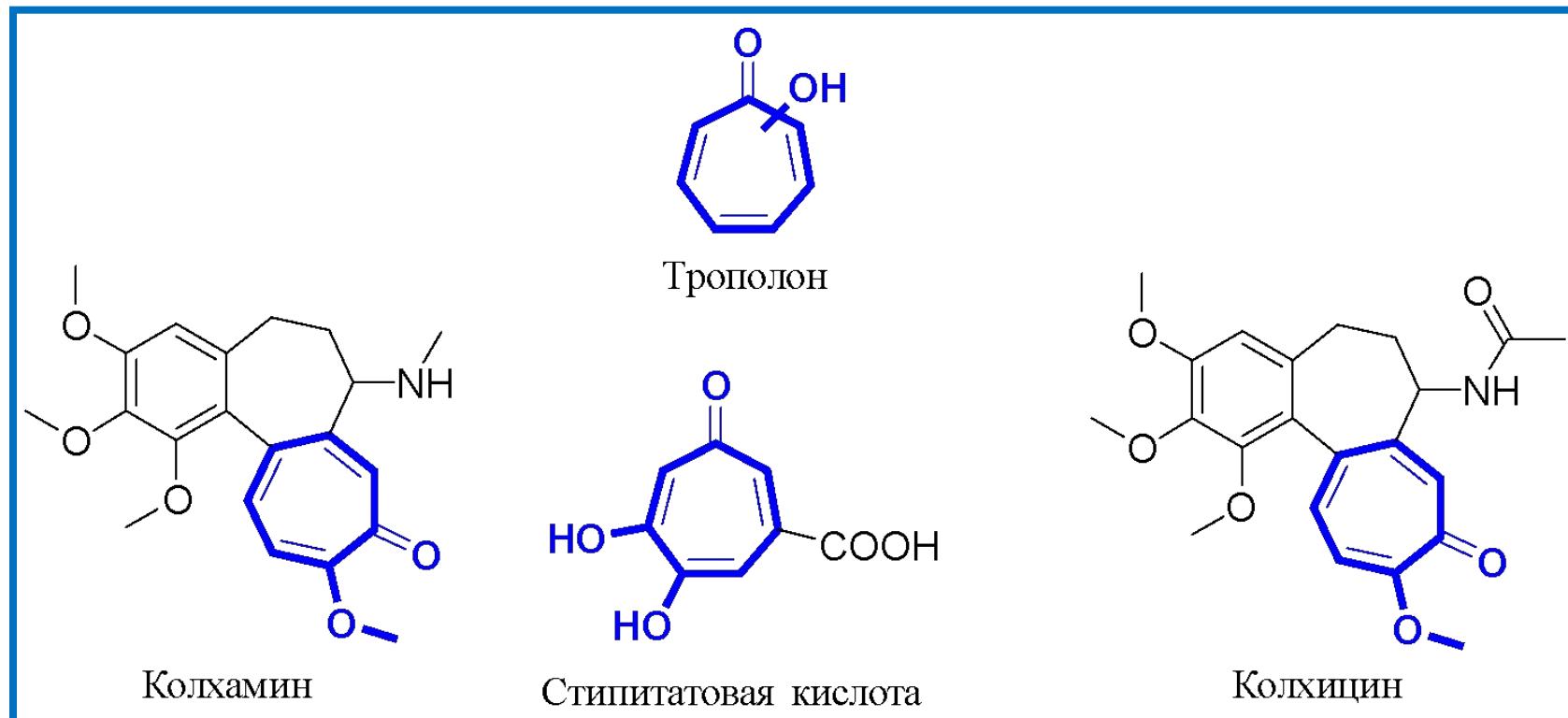
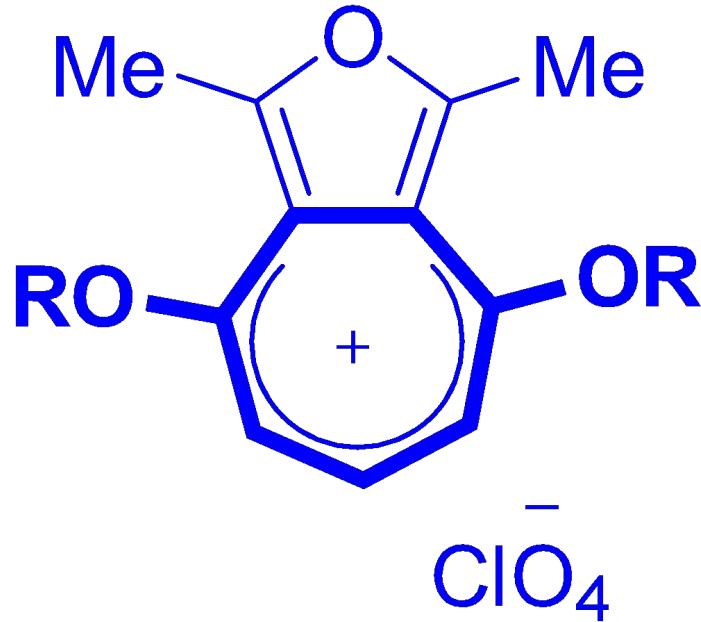
Окрашивание митохондрий



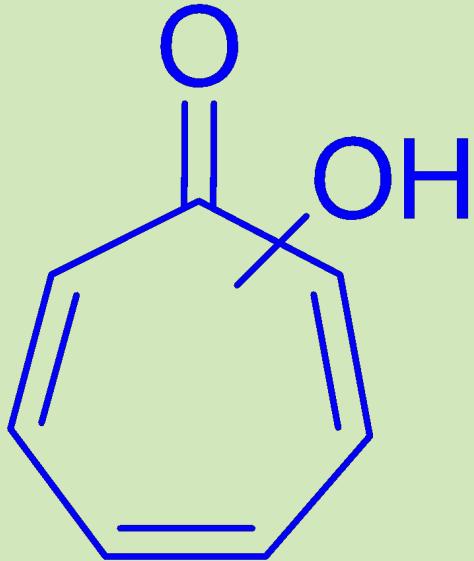
Sung J. Development of fluorescent mitochondria probe based on 1,2-dihydropyrrolo[3,4-b]indolizine-3-one / J. Sung, Y. Lee, J. H. Cha, S. B. Park, E. Kim // Dyes and Pigments – 2017. – V. 145. – P. 461-468.

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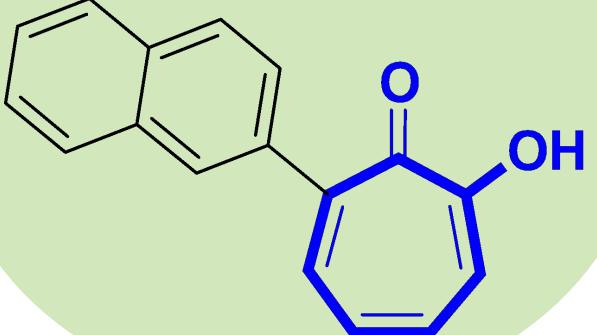
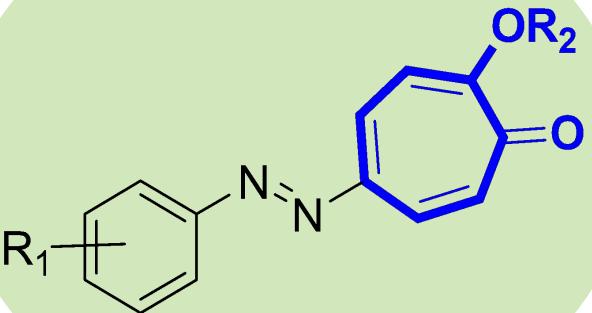
Фуротропилиевый фрагмент



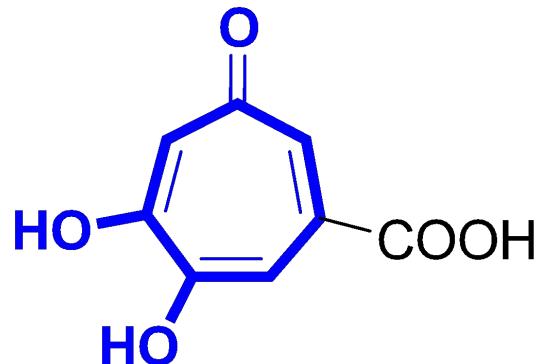
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Трополон

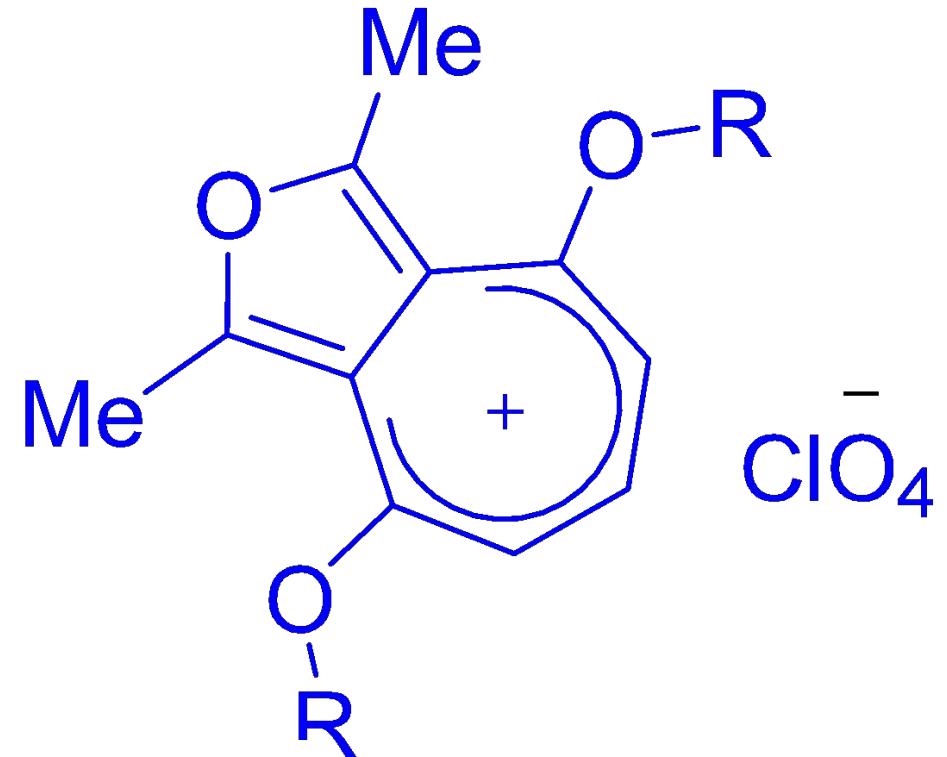
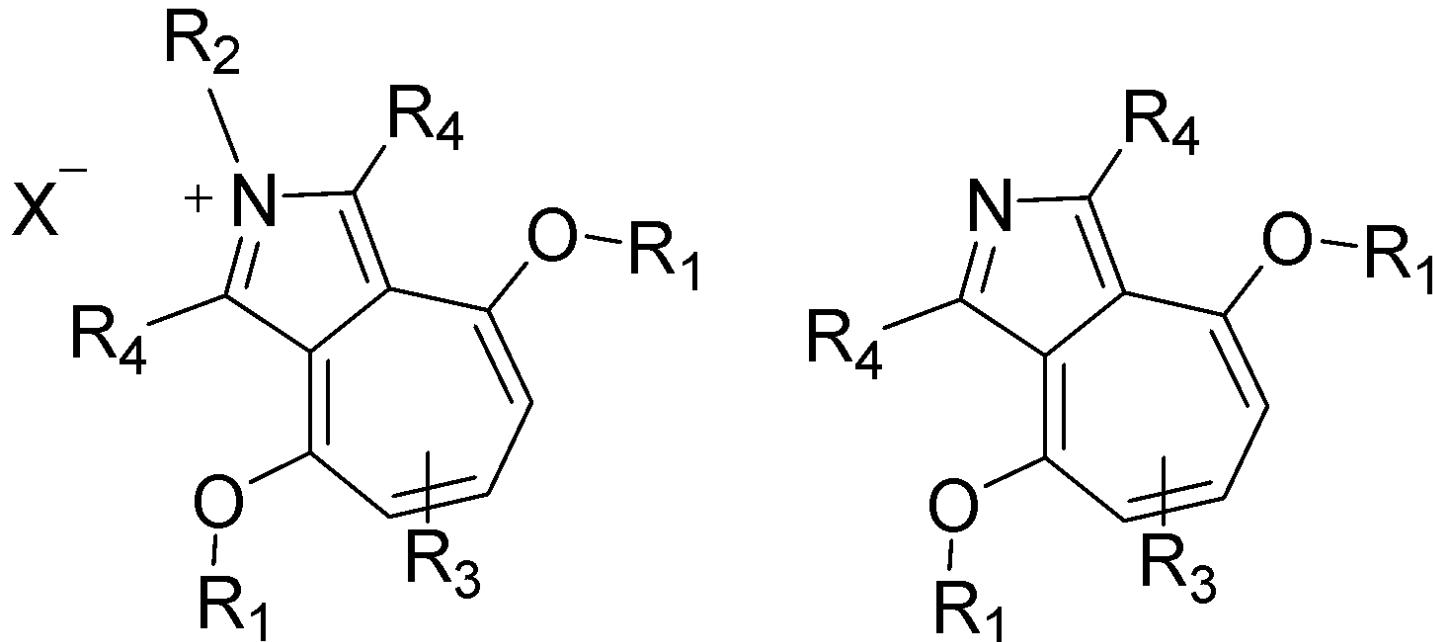


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13. A method of treatment of a disease selected from hyperproliferative diseases, autoimmune diseases, and heart diseases by administration of a therapeutically effective amount of a compound according to any of the claims 1-11 or a pharmaceutically acceptable salt or prodrug thereof to a mammal in the need of such treatment.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)



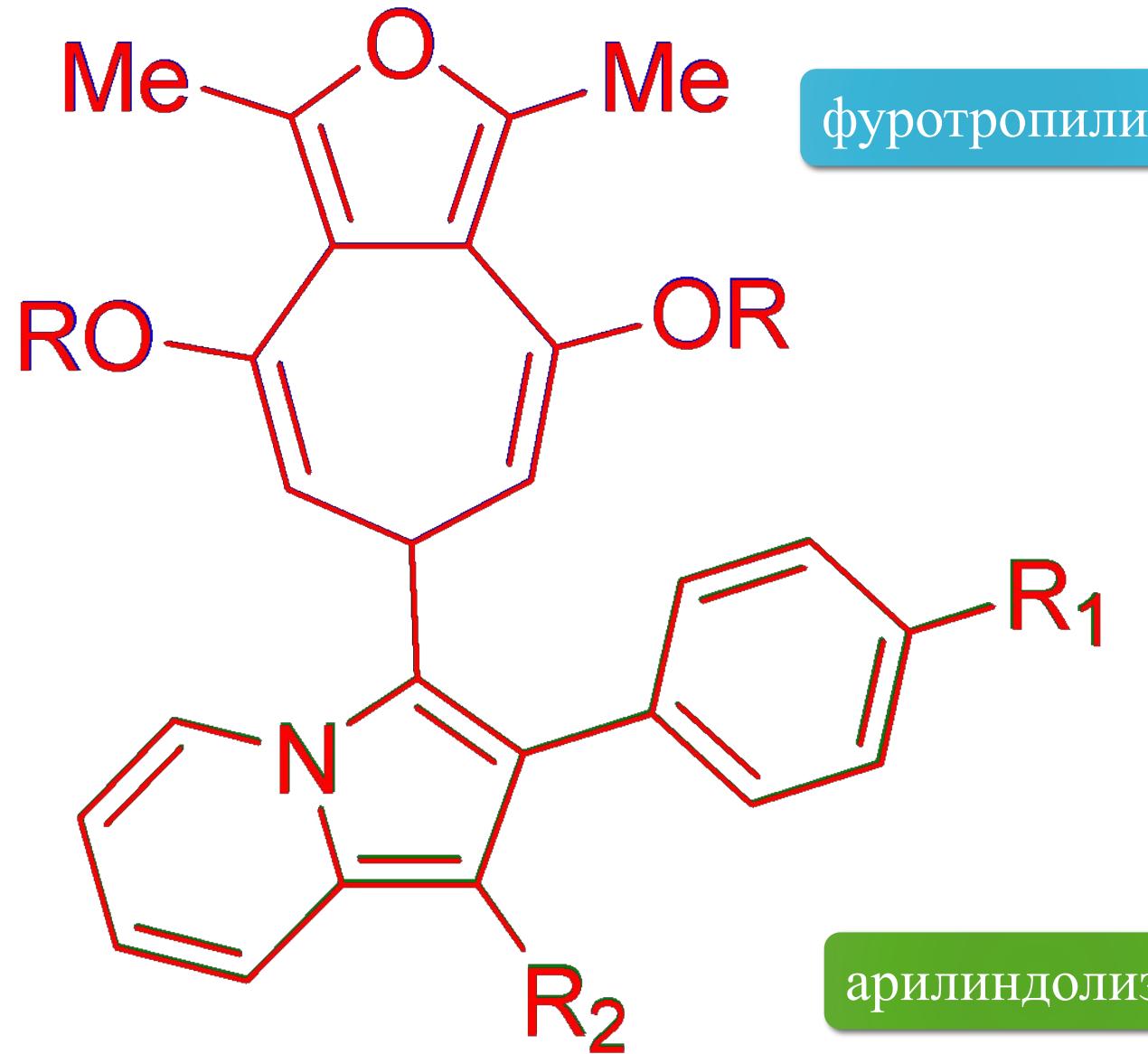
PCT

(10) International Publication Number
WO 2007/139499 A1

(19) World Intellectual Property Organization
International Bureau

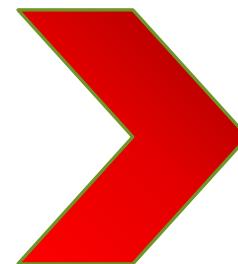
WIPO
OMPI

(43) International Publication Date
6 December 2007 (06.12.2007)



фуротропилий

арилиндолизин



Могут обладать
биологической
активностью

Спасибо за
внимание!