PATENT OFFICE
JAPANESE GOVERNMENT

This is to certify that the annexed is a true copy of the following application as filed with this Office.

Date of Application:	August 3, 1988
Application Number:	Patent Application No. 193606/1988
Applicant:	Nissan Chemical Industries Ltd.

November 14, 1988

Fumitake Yoshida
Director-General, Patent Office

(Internal priority claimed under Patent Law Article 42-2-1)
(Filing Date of the earlier application August 20, 1987)
(Application Number of the earlier application 207224/1987)
(Filing Date of the earlier application January 26, 1988)
(Application Number of the earlier application 015585/1988)

International Patent Classification
C07D 215/00

PETITION FOR PATENT APPLICATION

August 3, 1988

To: Director-General, Patent Office: Fumitake Yoshida

1. Title of the Invention:

QUINOLINE TYPE MEVALONOLACTONES

2. Number of Inventions stated in Claims:

34

3. Inventor(s):

Name: Yoshihiro Fujikawa (and four others)

Address: Nissan Chemical Industries Ltd.
Chuo Kenkyusho, 722-1, Tsuboi-cho,
Funabashi-shi, Chiba-ken

4. Patent Applicant:

Name: (398) Nissan Chemical Industries Ltd.

Representative: Takeo Nakai

Address: 7-1, 3-chome, Kanda-Nishiki-cho,
Chiyoda-ku, Tokyo 101

Please contact: TEL. 0474-65-1111

5. List of Attached Documents:

(1) Specification 1 copy
(2) Duplicate of Petition 1 copy

6. Inventors except above-mentioned:

Name:	Mikio Suzuki
Address:	Nissan Chemical Industries Ltd. Chuo Kenkyusho, 722-1, Tsuboi-cho, Funabashi-shi, Chiba-ken
Name:	Hiroshi Iwasaki
Address:	same as above
Name:	Mitsuaki Sakashita
Address:	Nissan Chemical Industries Ltd. Seibutsukagaku Kenkyusho, 1470, Oaza-shiraoka, Shiraoka-machi, Minamisaitama-gun, Saitama-ken
Name:	Masaki Kitahara
Address:	same as above

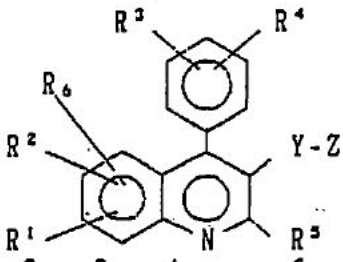
SPECIFICATION

1.TITLE OF THE INVENTION:

QUINOLINE TYPE MEVALONOLACTONES

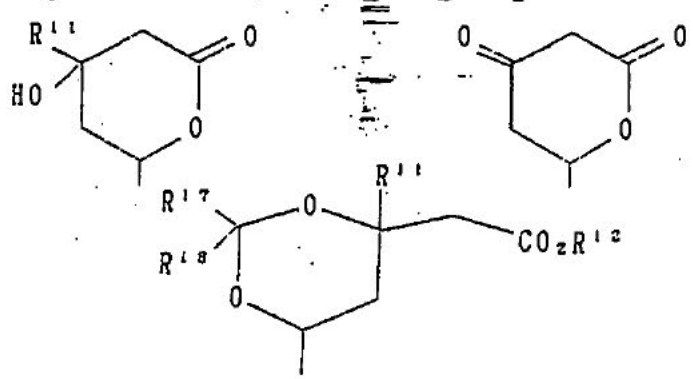
2.SCOPE OF THE CLAIMS:

1. A compound of the formula:



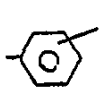
(I)

wherein R^1, R^2, R^3, R^4 and R^6 are independently hydrogen, C_{1-6} alkyl, C_{1-6} cycloalkyl, C_{1-3} alkoxy, n-butoxy, i-butoxy, sec-butoxy, R^7R^8N- (wherein R^7 and R^8 are independently hydrogen or C_{1-3} alkyl), trifluoromethyl, trifluoromethoxy, difluoromethoxy, fluoro, chloro, bromo, phenyl, phenoxy, benzyloxy, hydroxy, trimethylsilyloxy, diphenyl-t-butylsilyloxy, hydroxymethyl or $-O(CH_2)_\ell OR^{19}$ (wherein R^{19} is hydrogen or C_{1-3} alkyl, and ℓ is 1, 2 or 3); or when located at the ortho position to each other, R^1 and R^2, or R^3 and R^4 together form $-CH=CH-CH=CH-$; or when located at the ortho position to each other, R^1 and R^2 together form $-OC(R^{15})(R^{16})O-$ (wherein R^{15} and R^{16} are independently hydrogen or C_{1-3} alkyl); Y is $-CH_2-$, $-CH_2CH_2-$, $-CH=CH-$, $-CH_2-CH=CH-$ or $-CH=CH-CH_2-$; and Z is $-O-CH_2WCH_2-CO_2R^{12}$,



or

(wherein Q is $-C(O)-$, $-C(OR^{13})_2-$ or $-CH(OH)-$; W is $-C(O)-$, $-C(OR^{13})_2-$ or $-C(R^{11})(OH)-$; R^{11} is hydrogen or C_{1-3} alkyl; R^{12} is hydrogen or R^{14} (wherein R^{14} is physiologically hydrolyzable alkyl or M (wherein M is NH_4, sodium, potassium, 1/2 calcium or a hydrate of lower alkylamine, di-lower alkylamine or tri-lower alkylamine)); two R^{13} are independently primary or secondary C_{1-6} alkyl; or two R^{13} together form $-(CH_2)_2-$ or $-(CH_2)_3-$; R^{17} and R^{18} are independently hydrogen or C_{1-3} alkyl; and R^5 is hydrogen, C_{1-6} alkyl, C_{2-3} alkenyl, C_{3-6} cycloalkyl,



(wherein R^9 is hydrogen, C_{1-4} alkyl, C_{1-3} alkoxy, fluoro, chloro, bromo or trifluoromethyl), phenyl-$(CH_2)_m-$ (wherein m is 1, 2 or 3), $-(CH_2)_nCH(CH_3)$-phenyl or phenyl-$(CH_2)_nCH(CH_3)-$ (wherein n is 0, 1 or 2).

2. The compound according to Claim 1, wherein in the formula I, R^1, R^2 and R^6 are independently hydrogen, fluoro, chloro, bromo, C_{1-3} alkyl, C_{1-3} alkoxy, C_{3-6} cycloalkyl, dimethylamino, hydroxy, hydroxymethyl, hydroxyethyl, trifluoromethyl, trifluoromethoxy, difluoromethoxy, phenoxy or benzyloxy; or when R^6 is hydrogen, R^1 and R^2 together form methylenedioxy; when R^4 is hydrogen, R^3 is hydrogen, 3'-fluoro, 3'-chloro, 3'-methyl, 4'-methyl, 4'-chloro or 4'-fluoro; or R^3 and R^4 together represent 3'-methyl-4'-chloro, 3',5'-dichloro, 3',5'-difluoro, 3',5'-dimethyl or 3'-methyl-4'-fluoro; R^5 is primary or

DOCKET ALARM

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.