

The opinion in support of the decision being entered today was not
written for publication and is not binding precedent of the Board

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHELBY D. WORLEY, GANG SUN,
WANYING SUN and
TAY-YUAN CHEN

Appeal No. 1998-3042
Application No. 08/310,657¹

ON BRIEF

Before SPIEGEL, SCHEINER, and GRIMES, Administrative Patent Judges.
SPIEGEL, Administrative Patent Judge.

DECISION ON APPEAL

Claims 2 through 12, 39 and 42 through 50 are pending. Claims 2 through 12 and 44 through 47 have been indicated as allowable; and, claims 42 and 43 have been withdrawn from consideration under 37 CFR § 1.142(b) by the examiner.² Accordingly,

¹ Application for patent filed September 22, 1994. According to appellants, this application is continuation-in-part of application 08/282,154, filed July 28, 1994, now U.S. Patent 5,490,983, which issued February 13, 1996, which is a continuation of application 08/031,228, filed March 12, 1993, now abandoned.

² See the examiner's answer (Paper No. 22, mailed February 10, 1998, p. 2).

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this is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 39 and 48 through 50, the only other claims pending in this application. A copy of allowed claim 44 and appealed claims 39 and 48 through 50 is attached to this decision.

ISSUE

Claims 39 and 48-50 stand rejected under 35 U.S.C. § 112, first paragraph, on the grounds that the specification, as originally filed, fails to provide support for the invention as now claimed.

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims and to the respective positions articulated by the appellants and the examiner. We make reference to the examiner's answer (Paper No. 22, mailed February 10, 1998) for the examiner's reasoning in support of the rejection, and to the appellants' brief (Paper No. 21, filed November 12, 1997) and reply brief (Paper No. 23, filed April 7, 1998) for the appellants' arguments thereagainst.

THE INVENTION

The claimed invention is directed to cyclic amine copolymers comprising one or more monomeric repeating units of defined formulae I through X, which further comprises a monomeric repeating unit M, wherein M is different from monomeric unit(s) I through X and is copolymerizable with monomeric unit(s) I through X without hindering the ability of the monomeric unit(s) I through X of the resulting cyclic amine copolymer to be halogenated.

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Claims 39 and 50 define M as "one or more of acrylonitrile, styrene, acrylamide, methacrylamide, methyl methacrylate, ethylene, propylene, butylenes, or butadiene."

These copolymers "can be halogenated to render them biocidal and therefore useful for disinfection" (brief, para. bridging pp. 2-3).

BACKGROUND

According to appellants,

[c]laim 38 (which was later rewritten as claim 48) and claim 39 originally recited a copolymer comprising a monomeric repeating unit, defined by a recited structure, and "at least one other type of monomeric repeating unit." [The disputed] ... language appeared in the claims in response to a rejection under 35 U.S.C. § 112, second paragraph, that the "other type" monomer language was indefinite. In that response, appellants amended the claims to replace "other type monomeric repeating unit" with a "monomeric repeating unit M." [Brief, p. 4.]

OPINION

According to the examiner,

[t]here is no support in the specification for the expression "wherein the monomer M is copolymerizable with the monomer structure of the formula I, II, III, IV, V, VI, VII, VIII, IX, or X **without hindering the ability of the monomeric structure** of formula I, II, III, IV, V, VI, VII, VIII, IX or X of the cyclic amine copolymer to be halogenated" (emphasis in the original, answer, p. 4).

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter,

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rather than the presence or absence of literal support in the specification for the claim language. See Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-564, 19 USPQ2d 1111, 1116-117 (Fed. Cir. 1991) and In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

Here, appellants point to originally filed claims 38 and 39 and specification page 10, line 27 through page 11, line 2³ for original descriptive support for the expression "M" (reply brief, p. 2). The examiner has not explained, and it is not apparent, why this disclosure would not have conveyed to one of ordinary skill in the art that as of appellants' filing date, appellants were in possession of the cyclic amine copolymers recited in claims 39 and 48-50. It is not necessary that the claimed subject matter be described in ipsis verbis to satisfy the written description requirement of § 112. Fields v. Conover, 443 F.2d 1386, 1391, 170 USPQ 276, 280 (CCPA 1971) and In re Lukach, 440 F.2d 967, 969-70, 169 USPQ 795, 797 (CCPA 1971).

³ Each cyclic N-halamine monomeric repeating unit or cyclic amine monomeric repeating unit in the polymer can be identical, but need not be. Two or more different cyclic amine monomers can be copolymerized or one or more different cyclic amine monomers can be copolymerized with one or more other suitable monomer types. Other suitable monomer types include any monomer that can be copolymerized with a herein defined cyclic amine monomer without hindering the ability of the cyclic amine monomer to be halogenated. Examples of such other monomer types include acrylonitrile, styrene, acrylamide, methacrylamide, methyl methacrylate, ethylene, propylene, butylene, butadienes and other alkenes and dienes. [Specification, p. 10, l. 27 - p. 11, l. 5.]

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Accordingly, we find the examiner has not carried his burden of establishing a prima facie case of lack of an adequate written description. The rejection under 35 U.S.C. § 112, first paragraph, is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 39 and 48-50 under 35 U.S.C. § 112, first paragraph, is reversed.

REVERSED

CAROL A. SPIEGEL)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
TONI R. SCHEINER)	APPEALS
Administrative Patent Judge)	AND
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ERIC GRIMES)	
Administrative Patent Judge)	

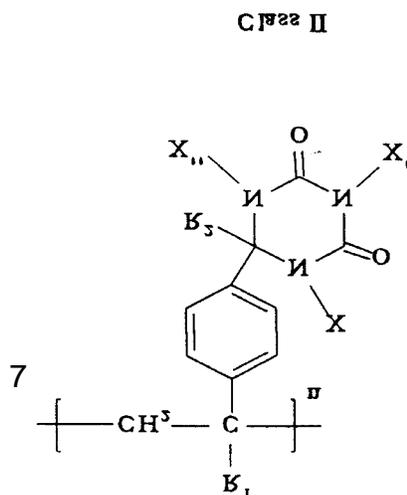
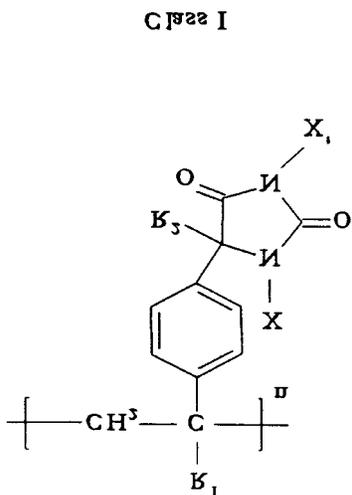
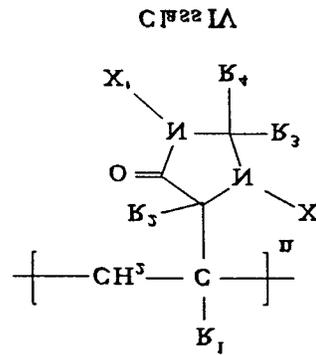
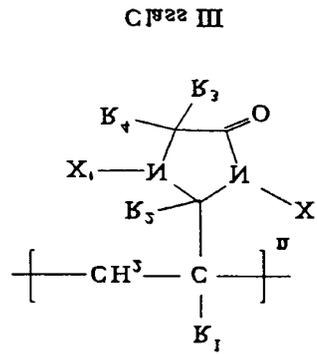
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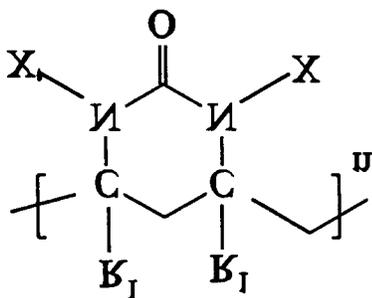
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SUITE 2800
SEATTLE, WA 98101-2347

39. The cyclic amine copolymer of Claim 48, wherein the monomeric repeating unit M is one or more of acrylonitrile, styrene acrylamide, methacrylamide, methyl, methyl methacrylate, ethylene, propylene, butylenes, or butadiene.

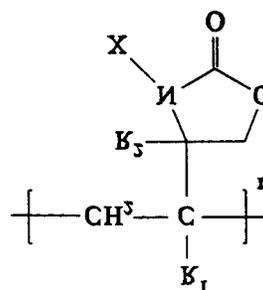
44. A cyclic amine polymer having a monomeric repeating unit comprising one or more structures of the formula I, II, III, IV, V, VI, VII, VIII, IX or X:



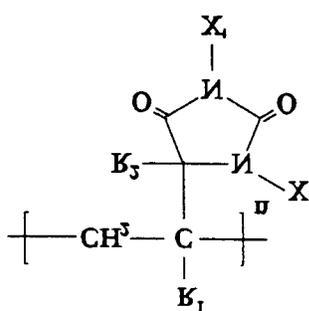
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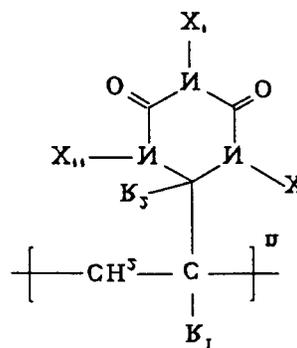
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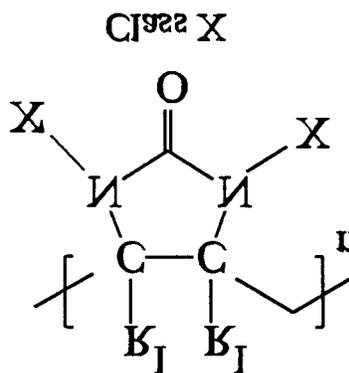
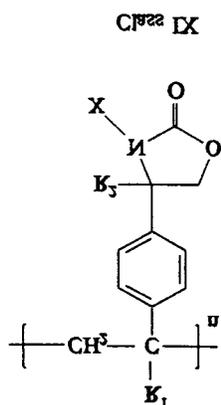


Class A



Class AI



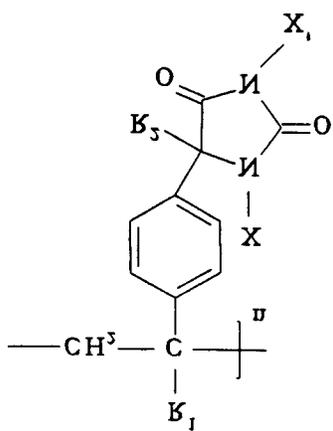


wherein X, X' and X'' are hydrogen; R¹ is hydrogen or C₁ to C₄ alkyl; R² is C₁-C₄ alkyl, benzyl or C₁-C₄ alkyl-substituted benzyl; and R³ and R⁴ are independently C₁-C₄ alkyl, phenyl, C₁-C₄ alkyl-substituted phenyl, benzyl or C₁-C₄ alkyl-substituted benzyl, or R³ and R⁴ together form a pentamethylene or tetramethylene moiety.

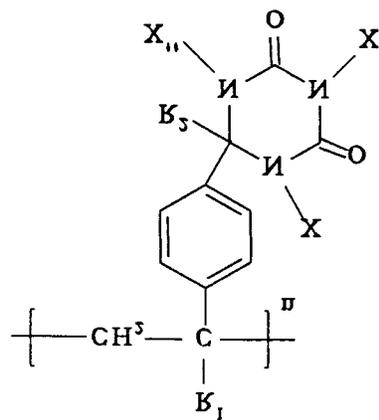
48. The polymer of Claim 44, further comprising a monomeric repeating unit M different than the monomeric structures of the formula I, II, III, IV, V, VI, VII, VIII, IX and X wherein the monomer M is copolymerizable with the monomeric structure of the formula I, II, III, IV, V, VI, VII, VIII, IX or X without hindering the ability of the monomeric structure of the formula I, II, III, IV, V, VI, VII, VIII, IX or X of the resultant cyclic amine copolymer to be halogenated.

49. A cyclic amine copolymer having a monomeric repeating unit comprising one or more structures of the formula I, II, III, IV, V, VI, VII, VIII, IX or X:

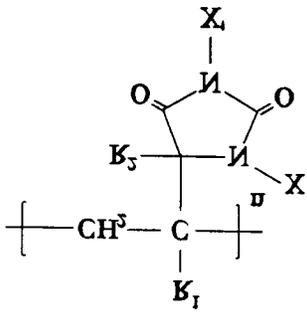
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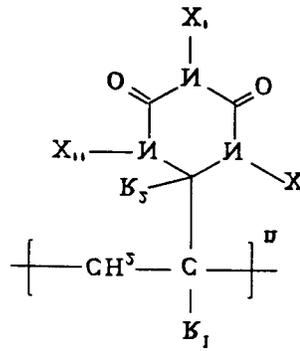
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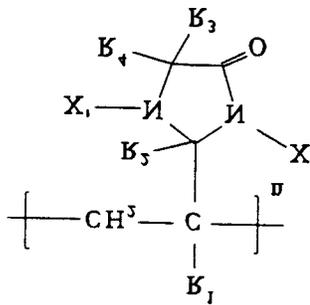
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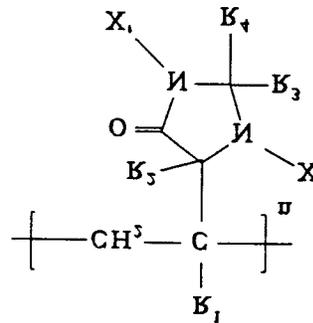
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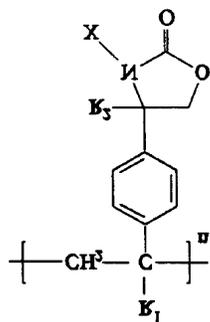
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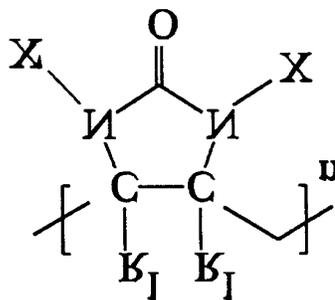
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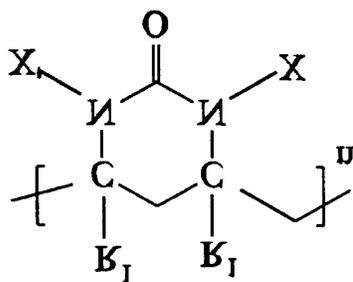
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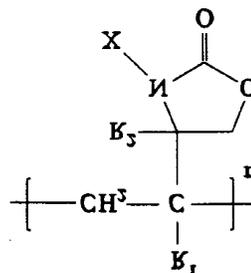
Class X



Class XII



Class XIII



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where in X, X' and X'' are independently chlorine, bromine or hydrogen, provided that at least one of X, X' and X'' is chlorine or bromine; R¹ is hydrogen or C₁ to C₄ alkyl; R² is C₁-C₄ alkyl, benzyl or C₁-C₄ alkyl-substituted benzyl; and R³ and R⁴ are independently C₁-C₄ alkyl, phenyl, C₁-C₄ alkyl-substituted phenyl, benzyl or C₁-C₄ alkyl-substituted benzyl, or R³ and R⁴ together form a pentamethylene or tetramethylene moiety, and further comprising a monomeric repeating unit M different than the monomeric structures of the formula I, II, III, IV, V, VI, VII, VIII, IX and X, wherein the monomer M is copolymerizable with the monomeric structure of the formula I, II, III, IV, V, VI, VII, VIII, IX or X without hindering the ability of the monomeric structure of the formula I, II, III, IV, V, VI, VII, VIII, IX or X of the cyclic amine copolymer to be halogenated.

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APPLICATION NO. 08/310,657

APJ SPIEGEL

APJ SCHEINER

APJ GRIMES

DECISION: **REVERSED**

Prepared By: Cheryl

DRAFT Submitted: 30 Nov 00

DRAFT PREPARED: 04 Dec 00
Claims Scanned - 4 pages

Corrections:

FINAL TYPED: