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61/496,584 14 June 2011 (14.06.2011) US
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- (74) **Agent:** SEPPÖ LAINE OY; Itämerenkatu 3 B, FI-00180 Helsinki (FI).
- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,

HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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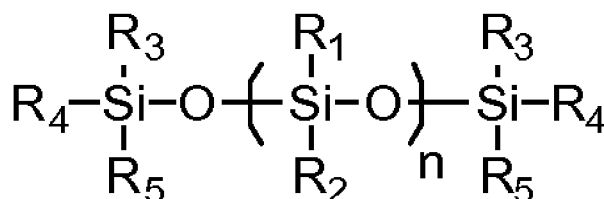
- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

- (88) **Date of publication of the international search report:**
25 April 2013

- (15) **Information about Correction:**

Previous Correction:
see Notice of 7 February 2013

- (54) **Title:** METHOD OF SYNTHESIZING SILOXANE MONOMERS AND USE THEREOF



Formula I

- (57) **Abstract:** A method for preparation and polymerization of siloxane monomers of Formula I is presented. The synthesis includes the selective reaction between silanol containing unit and alkoxy containing units in the presence of basic catalyst. The siloxane monomers of the invention can be used for preparation of siloxane polymers with good flexibility and cracking threshold, and functional sites, useful for applications requiring low metal content in semiconductor industry.



INTERNATIONAL SEARCH REPORT

International application No
PCT/FI2012/050601

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07F7/08 C08G18/61
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
C07F C08G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, CHEM ABS Data, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 611 774 A (TYLER LESLIE J) 23 September 1952 (1952-09-23)	16
A	the whole document	1-14
X	EP 1 512 724 A1 (3M ESPE AG [DE]) 9 March 2005 (2005-03-09) page 6 H2C=CH-CH2Si(CH3)(-O-Si(CH3)3)2	16
X	DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 1979, XP002686015, retrieved from STN Database accession no. 1979:187034 abstract	16
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search 26 October 2012	Date of mailing of the international search report 12/02/2013
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Diederren, Jeroen

INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI2012/050601

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-14, 16, 17

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No
PCT/FI2012/050601

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 1996, XP002686016, retrieved from STN Database accession no. 1996:241840 abstract	16
X	----- DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 2004, XP002686017, retrieved from STN Database accession no. 2004:180028 abstract	16
X	----- DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 2005, XP002686018, retrieved from STN Database accession no. 2005:1345882 abstract	16
X	----- ATSUSHI SHIMOJIMA ET AL.: "Self-assembly of designed oligomeric siloxanes with alkyl chains into silica based hybrid mesostructures", J. AM. CHEM. SOC., vol. 127, 2005, pages 14108-14116, XP002686019, compounds 2	16,17
A	----- ANDRIANOV K A ET AL: "SYNTHESIS OF 2,2-DIORGANO-I-OXA-2-SILACYCLOHEXANES AND OF [4-(ACYLOXY)BUTYL] CHLORODIORGANOSILANES FROM THE LATTER", JOURNAL OF GENERAL CHEMISTRY USSR, CONSULTANTS BUREAU, NEW YORK, NY, US, vol. 49, no. 5, 1 January 1979 (1979-01-01), pages 1093-1098, XP008157583, ISSN: 0022-1279 page 952 -----	1-14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/FI2012/050601

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2611774	A	23-09-1952	NONE

EP 1512724	A1	09-03-2005	AT 359323 T 15-05-2007
			DE 60313164 T2 13-12-2007
			EP 1512724 A1 09-03-2005
			JP 2007504312 A 01-03-2007
			US 2007004858 A1 04-01-2007
			WO 2005023934 A1 17-03-2005

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14, 16, 17

Compounds of Formula (I), process for their preparation and use of a process for the preparation of compounds (I) in a method for producing a polysiloxane

2. claim: 15

Hydrosilylation of vinyl, allyl and Si-H functionalities of the monomer of claim 1 by Pt or Pd catalysts
