# THIRD-PARTY SUBMISSION UNDER 37 CFR 1.290

(Do not submit this form electronically via EFS-Web)

<table>
<thead>
<tr>
<th>Cite No.</th>
<th>Document Number</th>
<th>Issue Date of Publication Date</th>
<th>First Named Inventor</th>
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<tbody>
<tr>
<td>1</td>
<td>US- 4,112,182</td>
<td>09/05/1978</td>
<td>Gordon C. Newland</td>
</tr>
<tr>
<td>2</td>
<td>US- 2010/0055484-A1</td>
<td>03/04/2010</td>
<td>Michelle N. Chretien</td>
</tr>
</tbody>
</table>

**FOREIGN PATENTS AND PUBLISHED FOREIGN PATENT APPLICATIONS**

<table>
<thead>
<tr>
<th>Cite No.</th>
<th>Country or Patent Office and Document Number</th>
<th>Publication Date</th>
<th>Applicant, Patentee or First Named Inventor</th>
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<tbody>
<tr>
<td>3</td>
<td>WO-1990/003986</td>
<td>04/19/1990</td>
<td>Bela Takacs</td>
</tr>
</tbody>
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1. If known, enter kind of document by the appropriate symbols indicated on the document under WIPO Standard ST.16. See MPEP 901.04(a). 2. Enter the country or patent office that issued the document by two-letter country code under WIPO Standard ST.3. See MPEP 1851. 3. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 4. If known, enter kind of document by the appropriate symbols indicated on the document under WIPO Standard ST.16. See MPEP 901.04(a).

This collection of information is required by 35 U.S.C. 122(a) and 37 CFR 1.290. The information is required to obtain or retain a benefit by the public, which is to update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 10 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
### Third-Party Submission Under 37 CFR 1.290

(Application Number (required): 13/043,876)

#### Non-Patent Publications (e.g., Journal Article, Office Action)

<table>
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<tr>
<th>Cite No.</th>
<th>Author (if any), title of the publication, page(s) being submitted, publication date, publisher (where available), and place of publication (where available)</th>
<th>Translation Attached</th>
<th>Evidence of Publication Attached</th>
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#### Statements

The party making the submission is not an individual who has a duty to disclose information with respect to the above-identified application under 37 CFR 1.56.

This submission complies with the requirements of 35 U.S.C. 122(e) and 37 CFR 1.290.

☐ The fee set forth in 37 CFR 1.290(f) is submitted herewith.

☐ The fee set forth in 37 CFR 1.290(f) is not required because this submission lists three or fewer total items and, to the knowledge of the person signing the statement after making reasonable inquiry, this submission is the first and only submission under 35 U.S.C. 122(e) filed in the above-identified application by the party making the submission or by a party in privity with the party.

<table>
<thead>
<tr>
<th>Signature</th>
<th>Kit Walsh</th>
<th>Date 01/22/2013</th>
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</thead>
<tbody>
<tr>
<td>Name (Printed/Typed)</td>
<td>Kit Walsh</td>
<td>Reg. No., if applicable</td>
</tr>
</tbody>
</table>

*EXAMINER: Signature indicates all items listed have been considered, except for citations through which a line is drawn. Draw line through citation if not considered. Include a copy of this form with next communication to applicant.*
THIRD-PARTY PREISSUANCE SUBMISSION UNDER 37 C.F.R. § 1.290 
CONCISE DESCRIPTION OF RELEVANCE

Cite No. 1 – Document Number US-4,112,182

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Listed on accompanying Form PTO/SB/429 are documents that may be considered material to the patentability of this application pursuant to 37 C.F.R. § 1.290. Copies of the patents or publications cited are enclosed, except as waived by 37 C.F.R. § 1.290(d)(3).

In accordance with 37 C.F.R. § 1.290(d)(2), Petitioners' undersigned representative submits the following concise description of relevance for the Newland reference (US-4,112,182) (“Newland”), Cite No. 1 on Form PTO/SB/429:

Newland discloses the use of an oligomeric curable material similar to that recited in Claims 1 and 35. More specifically, Newland teaches the use of UV-curable cellulose oligomers as coatings for plastic sheets and molding. See Newland at col. 1, lines 40-60. These acrylate-bearing oligomers are reminiscent of the oligomers cited by Applicants for use on pages 6-9 and 39-40 of the Specification. Furthermore, Newland teaches the use of photoinitiator compounds to enable the crosslinking reaction. See Newland at col. 6, lines 4-35. These acetophenone compounds are reminiscent of the photoinitiator
compounds described by Applicants in the Specification on pages 25, 26, and 40, and recited in Claim 3. Accordingly, Newland teaches the benefits of using such materials in a structurally sound plastic composition.

Should Examiner or the Office find that the above statement of relevance, or any portion thereof, is non-compliant with some requirement of 37 C.F.R. § 1.290, Petitioners respectfully request the third-party submission be entered if the error is of such minor character that it does not raise an ambiguity as to the content of the submission. See 70 Fed. Reg. 42,150, 42,168 (July 17, 2012).

Respectfully submitted,

ELECTRONIC FRONTIER FOUNDATION

By its counsel,

Kit Walsh
Clinical Instructional Fellow, Cyberlaw Clinic,
Berkman Center for Internet and Society
Harvard Law School
23 Everett Street, 2nd Floor
Cambridge, MA 02138
Phone: (617) 495-7547
Fax: (617) 495-7641

Date: January 22, 2013
THIRD-PARTY PREISSUANCE SUBMISSION UNDER 37 C.F.R. § 1.290
CONCISE DESCRIPTION OF RELEVANCE

Cite No. 2 – Document Number US-2010/0055484

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Listed on accompanying Form PTO/SB/249 are documents that may be considered material to the patentability of this Application pursuant to 37 C.F.R. § 1.290. Copies of the patents or publications cited are enclosed, except as waived by 37 C.F.R. § 1.290(d)(3).

In accordance with 37 C.F.R. § 1.290(d)(2), Petitioners' undersigned representative submits the following discussion of the relevance for the Chretien reference (2010/0055484) ("Chretien"), Cite No. 2 on Form PTO/SB/249:

Chretien discloses the use of a UV-curable, gel-based ink for use in three-dimensional printing. Specifically, Chretien teaches in its Example 1 the use of the following composition for use in three-dimensional printing: a mixture of amide gellants, multifunctional acrylic oligomers, acrylic wax, and a photoinitiator See Chretien at pg. 18, ¶ 0137. This material is heated, mixed, and then extruded onto a cold surface to form a semi-solid object, which is finally cured via exposure to UV light. See Chretien at pg. 18, ¶¶ 0137, 0138. This composition is comparable to both the build material recited by
Applicants in Claims 1-41 and the build material recipe found in Example 1 of the Specification on pages 39-40. Additionally, Chretien describes the use of its claimed ink composition in a Xerox inkjet printing system. See Chretien at pg. 18, ¶ 0140. This process is reminiscent of that described by Applicants in Example 1 on page 41 of the Specification. Finally, it should also be noted that a similar process was recited by Applicants in withdrawn claims 42-48.

Should Examiner or the Office find that the above statement of relevance, or any portion thereof, is non-compliant with some requirement of 37 C.F.R. § 1.290, Petitioners respectfully request the third-party submission be entered if the error is of such minor character that it does not raise an ambiguity as to the content of the submission. See 70 Fed. Reg. 42,150, 42,168 (July 17, 2012).

Respectfully submitted,

ELECTRONIC FRONTIER FOUNDATION

By its counsel,

Kit Walsh
Clinical Instructional Fellow, Cyberlaw Clinic,
Berkman Center for Internet and Society
Harvard Law School
23 Everett Street, 2nd Floor
Cambridge, MA 02138
Phone: (617) 495-7547
Fax: (617) 495-7641

Date: January 22, 2013
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No: 13/043,876
Inventor(s): Xu et al.
Filed: March 9, 2011
Art Unit: 1742
Examiner: Thrower, Larry W.
For: Build Material and Applications Thereof

Petitioners: Electronic Frontier Foundation

THIRD-PARTY PREISSUANCE SUBMISSION UNDER 37 C.F.R. § 1.290
CONCISE DESCRIPTION OF RELEVANCE

Cite No. 3 – Document Number WO-1990/003986

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Listed on accompanying Form PTO/SB/249 are documents that may be considered material to the patentability of this application pursuant to 37 C.F.R. § 1.290. Copies of the patents or publications cited are enclosed, except as waived by 37 C.F.R. § 1.290(d)(3).

In accordance with 37 C.F.R. § 1.290(d)(2), Petitioners' undersigned representative submits the following discussion of the relevance for the Takacs reference (WO-1990/003986) ("Takacs"), Cite No. 3 on Form PTO/SB/249:

Takacs discloses a curable acrylic prepolymer gel that is useful in the production of large plastic panels. This gel is synthesized by heating stabilized acrylate monomers in the presence of a radical initiator until the reaction mixture has become suitably viscous. See Takacs at pp. 1, 2. The resulting gel is then cooled, spread into molds, and cured via "UV light, heat, or other radiation." See Takacs at pp. 1, 2, 7. In short, Takacs teaches a semi-solid curable prepolymer that is later cured into final form. This is reminiscent of the build material recited by Applicants in Claims 1 and 35. Additionally, the UV-curable
acrylic materials disclosed in Takacs are not dissimilar to those suggested by Applicants for use as a "reactive component" or "(meth)acrylic diluent" in the Specification on pages 11-15 and 19.

Should Examiner or the Office find that the above statement of relevance, or any portion thereof, is non-compliant with some requirement of 37 C.F.R. § 1.290, Petitioners respectfully request the third-party submission be entered if the error is of such minor character that it does not raise an ambiguity as to the content of the submission. See 70 Fed. Reg. 42,150, 42,168 (July 17, 2012).

Respectfully submitted,

ELECTRONIC FRONTIER FOUNDATION

By its counsel,

Kit Walsh
Clinical Instructional Fellow, Cyberlaw Clinic, Berkman Center for Internet and Society Harvard Law School 23 Everett Street, 2nd Floor Cambridge, MA 02138 Phone: (617) 495-7547 Fax: (617) 495-7641

Date: January 22, 2013
THIRD-PARTY PREISSUANCE SUBMISSION UNDER 37 C.F.R. § 1.290
CONCISE DESCRIPTION OF RELEVANCE

Cite No. 4 – “Photocrosslinking of Dimethylaminopropylacrylamide Copolymer”

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Listed on accompanying Form PTO/SB/249 are documents that may be considered material to the patentability of this Application pursuant to 37 C.F.R. § 1.290. Copies of the patents or publications cited are enclosed, except as waived by 37 C.F.R. § 1.290(d)(3).

In accordance with 37 C.F.R. § 1.290(d)(2), Petitioners' undersigned representative submits the following discussion of the relevance for the Lopez reference (“Photocrosslinking of Dimethylaminopropylacrylamide Copolymer”) (“Lopez”), Cite No. 4 on Form PTO/SB/249:

Lopez discloses an acrylic prepolymer capable of undergoing a UV-initiated crosslinking reaction in the solid state. In Lopez, the prepolymer is formed by first reacting polyacrylamide oligomers with methylmethacrylate in the presence of a radical initiator and then filtering and freeze-drying the resulting gel. See Lopez at pp. 975, 976. This dry prepolymer is then exposed to UV light and the degree of additional crosslinking is measured. See Lopez at pp. 976, 977. Claims 1-36 of the Application recite a build
material that is similarly curable in the solid state. Furthermore, Applicants routinely cite throughout the Specification the use of UV-curable acrylic materials for use in the claimed build material. See Specification at pp. 6-15, 19, 39-41. In short, the solid-state UV-curable acrylate prepolymer taught by Lopez is very reminiscent of the build material described by Applicants in both the Specification and Claims of the Application.

Should Examiner or the Office find that the above statement of relevance, or any portion thereof, is non-compliant with some requirement of 37 C.F.R. § 1.290, Petitioners respectfully request the third-party submission be entered if the error is of such minor character that it does not raise an ambiguity as to the content of the submission. See 70 Fed. Reg. 42,150, 42,168 (July 17, 2012).

Respectfully submitted,

ELECTRONIC FRONTIER FOUNDATION

By its counsel,

Kit Walsh
Clinical Instructional Fellow, Cyberlaw Clinic,
Berkman Center for Internet and Society
Harvard Law School
23 Everett Street, 2nd Floor
Cambridge, MA 02138
Phone: (617) 495-7547
Fax: (617) 495-7641

Date: January 22, 2013