Abstract: Intravascular medical devices comprising a coating layer disposed on a substrate associated with the medical device, wherein the coating layer has a pre-determined fragmentation pattern. At least a portion of the coating layer comprises a plurality of discontinuous biodegradable members, wherein the discontinuous biodegradable members have a size less than the luminal diameter of an arteriole. The coating layer may be formed by excavating portions of a coating layer (e.g., by laser ablation) to create gaps which define the discontinuous biodegradable members. In certain embodiments, the coating layer is formed of a heat-bondable material. In such embodiments, the discontinuous biodegradable members may be adhered to the substrate via heat bonds. Also disclosed are methods of forming a coating layer on medical devices and methods of treating intravascular sites.
A. CLASSIFICATION OF SUBJECT MATTER

INV. A6I L31/10 A6I L31/14 A6I L31/16
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)
A61L

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 practical, search terms used)
EPO-Internal, BIOSIS, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
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<tr>
<td>X</td>
<td>US 2006/155370 A1 (BRISTER MARK [US]) 13 July 2006 (2006-07-13) paragraphs [0001], [0 20], [0 25], [0 27], [0 33] figure 5</td>
<td>1-15, 23-28</td>
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<td>A</td>
<td>US 2008/014332 A1 (CASTRO DANIEL [US] ET AL CASTRO DANIEL [US] ET AL) 17 January 2008 (2008-01-17) paragraphs [0002], [0 13] - [0015], [0 19], [0 20], [0 25], [0 27], [0 55] - [0059], [0 65] - [0074], [0 89], [0 90] paragraphs [0117], [120], [132], [134], [135] figures 8E-8I, 10E-10I, 11A, 11B, 12A-12D</td>
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X Further documents are listed in the continuation of Box C. X See patent family annex.

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Date of the actual completion of the international search
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Date of mailing of the international search report
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López García, Mónica
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