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(54) **TAILORED AND UNIFORM COATINGS IN MICROCHANNEL APPARATUS**

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(57) **ABSTRACT**

Interior microchannels within microchannel apparatus are uniformly coated. Remarkably, these uniform coatings are formed from materials that are applied to the interior microchannels after an apparatus has been assembled or manufactured. Coatings can be made uniform along the length of a microchannel, in the corner of a microchannel, and/or throughout numerous microchannels in an array of microchannels. Techniques for tailoring the application of wash-coats onto microchannels is also described.

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