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| | Nota di contenuto | Intro -- &lt -- named-book-part-body&amp -- #62 -- &lt -- p&amp -- #62 -- The rapid advancement of open microfluidics in recent years has prompted the need for updating our inaugural book, &amp -- #x0201C -- Open-Channel Microfluidics,&amp -- #x0201D -- initially published in 2019. Additionally, we aim to expand the scope of our earlier publication, &amp -- #x0201C -- Open Microfluidics,&amp -- #x0201D -- released in 2016, to encompass the examination of the dynamics associated with open capillary-driven microflows.&lt -- /p&amp -- #62 -- &lt -- p&amp -- #62 -- The second edition delves into capillary fl -- Acknowledgments -- Author biographies -- Jean Berthier -- Ashleigh B Theberge -- Erwin Berthier -- Foreword to the first edition -- Foreword to the second edition -- Outline placeholder -- I.1 Paper-based microfluidics -- I.2 Thread-based microfluidics -- I.3 Sessile droplet microfluidics -- I.4 Open-channel microfluidics -- I.5 Book contents -- References -- Chapter  The theoretical basis of capillarity -- 1.1 Introduction -- 1.1.1 Surface tension -- 1.1.2 Laplace pressure -- 1.1.3 Liquid-liquid surface tension -- 1.1.4 Contact with solid surfaces: Young's law -- 1.1.5 Neumann's construction -- 1.1.6 The work of adhesion, the work of cohesion, and the Young-Dupré |

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Sommario/riassunto

The development of open microfluidics is relatively recent and is an emerging sub-domain of capillarity, with many applications. This second edition research text presents the recent advances in open microfluidics, the science that describes capillary microflows guided by solid structures and partly open to the surrounding air.