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Vacuum, Surfaces, and Films

JVST A

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Volume 31, Number 5
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Hexagonal 2: Roya Maboudian, Carlo Carraro, Debbie G. Senesky, and Christopher S. Roper, *JVST A*, **31**(5), p. 050805-2 (2013). Cover shows image of silicon carbide nanowires, courtesy of J. P. Alper, C. Carraro, R. Maboudian.

Hexagonal 3: Andrew V. Teplyakov and Stacey F. Bent, *JVST A* **31**(5), p. 050810-3 (2013). Figure reprinted from Wang and Hersam, *J. Am. Chem. Soc.* **130**, 12896 (2008) (table of contents image). Copyright 2008, with permission from the American Chemical Society. Cover shows intersecting Bi nanowires and styrene chains formed on the H-terminated Si(100) surface by hydrosilylation chemistry and Bi self-assembly.

Hexagonal 4: Xiao Z. Fan, Ekaterina Pomerantseva, Markus Gnerlich, Adam Brown, Konstantinos Gerasopoulos, Matthew McCarthy, James Culver, and Reza Ghodssi, *JVST A* **31**(5), p. 050815-2 (2013). Cover shows the molecular model showing the top and side view of a TMV virion and a ribbon diagram of a single coat protein subunit.

Hexagonal 5: I. S. Gilmore, *JVST A*, **31**(5), p. 050819-7 (2013). Reproduced from A. Rafati et al., *Journal of Controlled Release* **162** (2), 321-329 (2012). Copyright (2012), with permission from Elsevier. Cover shows a molecular image (label-free) of the surface of a model drug delivery microsphere using SIMS. The discontinuous surface regions of poly(lactic-co-glycolic acid) (green) and polyvinyl alcohol (blue) are seen with the lysozyme (red) concentrated around a surface pore.

Hexagonal 6: K. Y. Cheng, *JVST A*, **31** (5), p. 050814-5 (2013). Courtesy of RIBER. Cover shows the picture of a modern production MBE system that can accept multiple (~10) substrate platens at once with the capacity to handle multiple wafers as large as 8 inch in diameter for each platen.

Hexagonal 7: Gary W. Rubloff, Alexander C. Kozen, and Sang Bok Lee, *JVST A*, **31**(5), p. 058503-5 (2013). (a) and (b) Reprinted from Cho et al., *J. Power Sources* **205**, 467 (2012). Copyright 2012, with permission from Elsevier. Cover shows a forest of silicon nanowires deposited by VLS growth and used as a high aspect ratio anode for lithium ion batteries.

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Hexagonal 9: Roya Maboudian, Carlo Carraro, Debbie G. Senesky, and Christopher S. Roper, *JVST A*, **31**(5), p. 050805-2 (2013). Cover shows structures of three most common silicon carbide polytypes.

Hexagonal 10: Gary W. Rubloff, Alexander C. Kozen, and Sang Bok Lee, *JVST A*, **31**(5), p. 058503-5 (2013). Reprinted from Duay et al., *ACS Nano* **7**, 1200 (2013). Copyright 2013, with permission from the American Chemical Society. Cover shows an array of MnO₂ nanowires fabricated by electrodeposition into and subsequent removal of an anodic aluminum oxide nanotemplate. This array of high aspect ratio nanostructures is used as an electrode for supercapacitors.