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### Research articles and research review articles (updated February 2019)

#### *Book chapters and invited reviews (refereed)*

1. K. Han, C. W. Shields IV and O. D. Velev, *Adv. Funct. Mater.* **1705953**, 1-14 (2018). The Evolution of Active Particles: Towards Externally Powered Self-Propelling and Self-Reconfiguring Particle Systems. DOI: [10.1002/adfm.201705953](https://doi.org/10.1002/adfm.201705953) Feature Article
2. C. W. Shields IV and O. D. Velev, *Chem.* **3**, 539–559 (2017). Engineering of Self-Propelling Microbots and Microdevices Powered by Magnetic and Electric Fields. DOI: [10.1016/j.chempr.2017.09.006](https://doi.org/10.1016/j.chempr.2017.09.006)
3. M. C. Flickinger, O. I. Bernal, M. J. Schulte, J. J. Broglie, C. J. Duran, A. Wallace, C. B. Mooney and O. D. Velev, *J. Coat. Technol. Res.*, **4**, 791–808 (2017). Biocoatings: challenges to expanding the functionality of waterborne latex coatings by incorporating concentrated living microorganisms. DOI: [10.1007/s11998-017-9933-6](https://doi.org/10.1007/s11998-017-9933-6)
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8. J. S. Jenkins, M. C. Flickinger and O. D. Velev, *Materials*, **6**, 1803-1825 (2013). Engineering Cellular Photocomposite Materials Using Convective Assembly. DOI: [10.3390/ma6051803](https://doi.org/10.3390/ma6051803)
9. I. Kretzschmar, S. Gangwal, A. B. Pawar and O. D. Velev, "Self-assembly of Janus particles under external fields," chapter in "Janus Particle Synthesis, Self-assembly and Applications", S. Jiang and S. Granick, Eds., RSC Press, 2012, pp. 168-203. DOI: [10.1039/9781849735100-00168](https://doi.org/10.1039/9781849735100-00168)
10. N. Carroll, S. T. Chang, D. N. Petsev and O. D. Velev, "Droplet Microreactors for Materials Synthesis", chapter in "Microdroplet Technology: Principles and Applications in Biology and Chemistry", P. Day, A. Manz and Y. Zhang, Eds., Elsevier, 2012, pp. 179-209.
11. B. G. Prevo and O. D. Velev, "Materials Deposition in Evaporating Menisci — Fundamentals and Engineering Applications of the Convective Assembly Process", chapter in "Evaporative

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  22. O. D. Velev, "Assembly of Electrically Functional Microstructures from Colloidal Particles", chapter in "Colloids and Colloid Assemblies", F. Caruso, Ed., Wiley-VCH Publ. Weinheim, 2003, pp. 437-464.
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**Research papers (refereed)**

26. S. Roh, L. B. Okello, N. Golbasi, J. P. Hankwitz, J. A.-C. Liu, J. B. Tracy and O. D. Velev, *Adv. Mater. Technol.*, 1800528, 1-6 (2019). 3D-Printed Silicone Soft Architectures with Programmed Magneto-Capillary Reconfiguration. DOI: [10.1002/admt.201800528](https://doi.org/10.1002/admt.201800528)
27. S. Roh and O. D. Velev, *AIChE J* **64**, 3558-3564 (2018). Nanomaterials Fabrication by Interfacial Templating and Capillary Engineering in Multiphasic Liquids. DOI: [10.1002/aic.16348](https://doi.org/10.1002/aic.16348)
28. C. W. Shields IV, K. Han, F. Ma, T. Miloh, G. Yossifon, O. D. Velev, *Adv. Funct. Mater.*, 1803465, 1-7 (2018). Supercolloidal Spinners: Complex Active Particles for Electrically Powered and Switchable Rotation. DOI: [10.1002/adfm.201803465](https://doi.org/10.1002/adfm.201803465)
29. U. Ohiri, C. W. Shields, K. Han, T. Tyler, O. D. Velev, N. M. Jokerst, *Nature Comm.*, **9**, 1791, 1- 9 (2018). Reconfigurable engineered motile semiconductor microparticles. DOI: [10.1038/s41467-018-04183-y](https://doi.org/10.1038/s41467-018-04183-y)
30. U. Ohiri, K. Han, C. W. Shields, O. D. Velev and Nan M. Jokerst, Propulsion and assembly of remotely powered p-type silicon microparticles *APL Materials* 6, 121102 (2018); <https://doi.org/10.1063/1.5053862>
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34. M. Rutkevičius, O. D. Velev and K. P. Velikov, *Food Hydrocoll.* **82**, 89-95 (2018). Stabilization of oil continuous emulsions with colloidal particles from water-insoluble plant proteins. DOI: [10.1016/j.foodhyd.2018.04.004](https://doi.org/10.1016/j.foodhyd.2018.04.004)
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36. S. Das, E-S. M. Duraia, O. D. Velev, M. D. Amiria, G. W. Beall, *Appl. Surf. Sci.*, **435**, 512-520 (2018). Formation of periodic size-segregated stripe pattern via directed self-assembly of binary colloids and its mechanism. DOI: [10.1016/j.apsusc.2017.11.142](https://doi.org/10.1016/j.apsusc.2017.11.142)
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