Scaffolds provide an environment for cells to attach, proliferate, and develop for tissue engineering applications. Learn more in the Review by Cooper-White et al. (p. 691) in this issue’s Research Front.

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Yang Cao, Tristan I. Croll, Justin G. Lees, Bernard E. Tuch, Justin J. Cooper-White


Nanofibres and their Influence on Cells for Tissue Regeneration

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Sachin Shanbhag, Jungwoo Lee, Nicholas A. Kotov

Processing Windows for Forming Silk Fibroin Biomaterials into a 3D Porous Matrix

Hyeon Joo Kim, Hyun Suk Kim, Akira Matsumoto, In-Joo Chin, Hyoung-Joon Jin, David L. Kaplan


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Sweet Biofriendly Silicates

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Martin G. Banwell, David W. Lupton, Anthony C. Willis


Synthesis and Characterization of SAMs and Tethered Bilayer Membranes from Unsymmetrically Substituted 1,2-Dithianes

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New Camphor-Derived Selenonium Ylides: Enantioselective Synthesis of Chiral Epoxides

Xin-Liang Li, Yi Wang, Zhi-Zhen Huang

**Short Communication**

**Increased-Valence or Electronic Hypervalence for a Diatomic One-Electron Bond**

Either the A atom valence or the B atom valence for the heteronuclear one-electron bond (A·B) exceeds unity. For the ground states of H$_2^+$, H$_2$, and H$_2^-$, the valence for each H atom is unity.

*Richard D. Harcourt*


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**Book Review**

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