Publikationen

Callies, X.; Vechambre ,C.; Fonteneau, C.; Herbst, F.; Chenal, J.-M. ; Pensec, S.; Chazeau, L. ; Binder, W.H. ; Bouteiller L.; Creton C., **Effects of multifunctional cross-linkers on rheology and adhesion of soft nanostructured materials.** *Soft Matter* **2017**, 13 (43), 7979-7990.

Yan, T.; Schröter, K.; Herbst, F.; Binder, W. H.; Thurn-Albrecht, T., **What controls the structure, and the linear and nonlinear rheological properties of dense, dynamic supramolecular polymer networks?** *Macromolecules* **2017**, *50, 2973-2985*.

Yan, T.; Schröter, K.; Herbst, F.; Binder, W. H.; Thurn-Albrecht, T., **Unveiling the molecular mechanism of self-healing in a telechelic, supramolecular polymer network.** *Scientific Reports* **2016**, 6, *Article number: 32356*.

Yan, T.; Schröter, K.; Herbst, F.; Binder, W. H.; Thurn-Albrecht, Th., **Nanostructure and rheology of hydrogen bonding telechelic polymers in the melt: from micellar liquids and solids to supramolecular gels.** *Macromolecules* **2014**, 47 (6), 2122-2130.

Herbst, F.; Binder, W. H., **Comparing solution and melt-state association of hydrogen bonds in supramolecular polymers.** *Polym. Chem.* **2013**, *4, 3602-3609.*

Herbst, F.; Binder, W. H., **Self-healing polymers via supramolecular, hydrogen bonded networks**. In *Self Healing Polymers*, Binder, W. H., Ed. Wiley-VCH: **2013**.

Herbst, F.; Döhler, D.; Michael P.; Binder, W. H., **Self-healing polymers via supramolecular forces**. *Macromol.Rapid Commun.* **2013**, 34 (3), 203-220.

Hackethal, K.; Herbst, F.; Binder, W. H., **Synthesis and clustering of supramolecular "graft" polymers**. *J. Polym. Sci. A: Polym. Chem.* **2012**, *50* (21), 4494-4506.

Herbst, F.; Seiffert, S.; Binder, W. H., **Dynamic supramolecular poly(isobutylene)s for self-healing materials**. *Polym.Chem.* **2012**, 3 (11), 3084-3092.
(This article has been identified as a `Paper-of-the-week´ for Polymer Chemistry. The article has been highlighted on the blog of Polymer Chemistry.)

Binder, W. H.; Schunack, M.; Herbst, F.; Pulamagatta, B., **Biomimetic Principles in Macromolecular Science**. In *Bioinspiration and Biomimicry in Chemistry*, Swiegers, G., Ed. Wiley-VCH: **2012**.

Pulamagatta, B.; Ostas, E.; Herbst, F.; Struth, B.; Binder, W. H., **Shear induced structure orientation in norbornene block copolymers: In situ Rheo-SAXS investigations**. *Eur. Polym. J.* **2012**, *48* (6), 1127-1134.

Zare, P.; Stojanovic, A.; Herbst, F.; Akbarzadeh, J.; Peterlik, H.; Binder, W. H., **Hierarchically Nanostructured Polyisobutylene-Based Ionic Liquids**. *Macromolecules* **2012**, *45* (4), 2074-2084.

Adekunle, O.; Herbst, F.; Hackethal, K.; Binder, W. H., **Synthesis of nonsymmetric chain end functionalized polyisobutylenes**. *J. Polym. Sci. A: Polym. Chem.* **2011**, *49* (13), 2931-2940.

Binder, W. H.; Herbst, F., **Click chemistry in polymer science**. In *McGraw-Hill Yearbook of Science & Technology*, Blumel, D., Ed. McGraw-Hill: **2011**.

Binder, W. H.; Enders, C.; Herbst, F.; Hackethal, K., **Synthesis and Self-Assembly of Hydrogen-Bonded Supramolecular Polymers**. In *Complex Macromolecular Architectures: Synthesis, Characterization and Self Assembly*, Hadjichristidis, N.; Hirao, A.; Tezuka, Y.; Du Prez, F., Eds. Wiley-VCH: **2011**.

Herbst, F.; Schulz, M.; Binder, W. H., **Ordentlich dynamisch: Supramolekulare Polymere**. *Nachr. Chem.* **2010**, *58* (7-8), 734-739.

Herbst, F.; Schröter, K.; Gunkel, I.; Gröger, S.; Thurn-Albrecht, T.; Balbach, J.; Binder, W. H., **Aggregation and Chain Dynamics in Supramolecular Polymers by Dynamic Rheology: Cluster Formation and Self-Aggregation**. *Macromolecules* **2010**, *43* (23), 10006-10016.